S. HRG. 101-837

ENVIRONMENTAL ISSUES AND AVTEX FIBERS, INC.

HEARING

BEFORE THE

SUBCOMMITTEE ON TOXIC SUBSTANCES, ENVIRONMENTAL OVERSIGHT, RESEARCH AND DEVELOPMENT

OF THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE

ONE HUNDRED FIRST CONGRESS

SECOND SESSION

JUNE 20, 1990

Printed for the use of the
Committee on Environment and Public Works

U.S. GOVERNMENT PRINTING OFFICE

33-550 WASHINGTON : 1990

For sale by the Superintendent of Documents, Congressional Sales Office
U.S. Government Printing Office, Washington, DC 20402

S321-46

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ENVIRONMENTAL ISSUES AND AVTEX FIBERS, INC.

WEDNESDAY, JUNE 20, 1990

U.S. SENATE, COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS, SUBCOMMITTEE ON TOXIC SUBSTANCES, ENVIRONMENTAL OVERSIGHT, RESEARCH AND DEVELOPMENT
Washington, DC.

The subcommittee met, pursuant to notice, at 10:00 a.m. in room 406, Dirksen Senate Office Building, Hon. Harry Reid (chairman of the subcommittee) presiding.

Present: Senators Reid and Warner.

OPENING STATEMENT OF HON. HARRY REID, U.S. SENATOR FROM THE STATE OF NEVADA

Senator REID. The subcommittee will come to order.

Today's hearing concerns a matter of great importance to the committee, especially to Senator Warner, my distinguished colleague and the subcommittee's ranking Republican. Avtex Fibers, Inc. operated for nearly 50 years on the banks of the Shenandoah River at the base of the Blue Ridge Mountains. In that beautiful location, it was the largest employer in the historic Shenandoah Valley.

It was the only producer of carbonized rayon, which is needed by NASA and the Defense Department for its heat resistant properties.

But Avtex ignored its beautiful and historical location and degraded its surroundings to the point of creating an imminent and substantial endangerment of the public's health and the environment. Heavy metals, carbon disulfide and PCBs blighted the river, the land and the ground water. Virginia scored near the top of EPA's Toxic Release Inventory in 1987 largely because Avtex released approximately 50 million pounds of carbon disulfide per year.

The Government's enforcement response to Avtex-like problems is the subject of today's hearings. While we understand the tension between environmental protection and jobs, how much tolerance should the Government show before its enforcement actions display some iron teeth? How many more Avtex-like 50-year-old plants with serious infrastructure problems are there in America? While I don't believe there are such plants in Nevada, there could be, because the major industrial complex in Nevada was started at exactly the same time Avtex was started in 1940, at the beginning of the war.

I would like to know whether EPA's recent enforcement strategy has contemplated targeting Avtex-like plants. We need some assurance from the EPA that when it encounters such a plant, one which also is a major employer or supplies an important commodity, that public health and the environment are paramount, must be paramount and actually will be paramount.

Finally, I realize that different offices of both the State and of EPA were involved in the Avtex situation. This subcommittee has learned that tensions exist between offices of the same agency, not to mention the problems encountered when different agencies of different governments are involved together. Different offices of the same agency often have different ways of approaching and analyzing problems.

The task for the subcommittee then is to determine whether or not the Avtex situation, which involved State and Federal agencies and offices, has taught us anything about how to work more efficiently together in the future.

I intend to find out whether EPA has implemented changes nationally to address some of the State-EPA tensions which arose at Avtex.

OPENING STATEMENT OF HON. JOHN W. WARNER, U.S. SENATOR FROM THE COMMONWEALTH OF VIRGINIA

Senator REID. Senator Warner.

Senator WARNER. Thank you, Mr. Chairman. I also wish to express my personal gratitude to you for acceding to my request to have this hearing. That action by you is a further manifestation of the close working relationship we have had on this subcommittee, and your sense of being a team player as one of the leaders on the committee as a whole.

This is a case which has caused me a great deal of personal distress. I have owned and operated a farm on the Shenandoah River just below the Avtex plant for close to 25 years. The 25 years before buying that farm, I lived—off and on—in this area. I don't know of anyone who feels more strongly than I about the beauty of the Shenandoah Valley, and the tragedies inflicted upon our environment by this industrial plant.

I felt it imperative that we use this distressing case as the basis of a study to determine the adequacy of Federal laws and the ability of Federal and State agencies to move and move swiftly to curtail the damage inflicted on the environment, but at the same time, observing the right of private property.

It is imperative also that the rights of private property be protected. A corporation under the due process of the laws of the Constitution of the United States and other Federal and State statutes is entitled to due process. As such, we cannot swing the pendulum to the point where we knock down the doors in the middle of the night to make inspections, be it private homes or industrial lands. Therefore, we have to examine that balance.

I had a very interesting discussion with Richard Burton, who is a director of the Water Control Board for the Commonwealth of Virginia. During the course of that conversation, he brought to my attention that the General Assembly—the State Legislature of the

Commonwealth of Virginia—this year passed a law which strengthened the injunctive relief available to the State agencies in cases such as Avtex.

That law will become effective in Virginia on July 1 of this year. It will enable a State agency in Virginia to go before our courts and, upon the presentation of sufficient evidence, we have a mandatory injunction—that is, the Judge's discretion is somewhat limited, but he must grant a mandatory injunction—to prevent further damage to the environment until such time as an assessment can be made under the laws and the facts.

So we are making progress in our State, and I ask unanimous consent that that statute be made a part of the record of the proceedings today.

Senator REID. That will be the order.

[The statute follows:]

§ 62.1-44.15. Powers and duties.—It shall be the duty of the Board and it shall have the authority:

(1) [Repealed.]

(2) To study and investigate all problems concerned with the quality of state waters and to make reports and recommendations.

(2a) To study and investigate methods, procedures, devices, appliances, and technologies which could assist in water conservation or water consumption reduction.

(2b) To coordinate its efforts toward water conservation with other persons or groups, within or without the Commonwealth.

(2c) To make reports concerning, and formulate recommendations based upon, any such water conservation studies to assure that present and future water needs of the citizens of the Commonwealth are met.

(3a) To establish such standards of quality and policies for any state waters consistent with the general policy set forth in this chapter, and to modify, amend or cancel any such standards or policies established and to take all appropriate steps to prevent quality alteration contrary to the public interest or to standards or policies thus established. The Board shall, from time to time, but at least once every three years, hold public hearings pursuant to subsection B of § 9-6.14:7.1 but, upon the request of an affected person or upon its own motion, hold hearings pursuant to § 9-6.14:8, for the purpose of reviewing the standards of quality, and, as appropriate, adopting, modifying, or cancelling such standards. Whenever the Board considers the adoption, modification, amendment or cancellation of any standard, it shall give due consideration to, among other factors, the economic and social costs and benefits which can reasonably be expected to obtain as a consequence of the standards as adopted, modified, amended or cancelled.

(3b) Except as provided in subdivision (3a), such standards and policies are to be adopted or modified, amended or cancelled in the manner provided by the Administrative Process Act (§ 9-6.14:1 et seq.).

(4) To conduct or have conducted scientific experiments, investigations, studies, and research to discover methods for maintaining water quality consistent with the purposes of this chapter. To this end the Board may cooperate with any public or private agency in the conduct of such experiments, investigations and research and may receive in behalf of the Commonwealth any moneys which any such agency may contribute as its share of the cost under any such cooperative agreement. Such moneys shall be used only for the purposes for which they are contributed and any balance remaining after the conclusion of the experiments, investigations, studies, and research, shall be returned to the contributors.

(5) To issue certificates for the discharge of sewage, industrial wastes and other wastes into or adjacent to or the alteration otherwise of the physical, chemical or biological properties of state waters under prescribed conditions and to revoke or amend such certificates.

(5b) Any certificate issued by the Board under this chapter may, after notice and opportunity for a hearing, be amended or revoked on any of the following grounds or for good cause as may be provided by the regulations of the Board:

1. The owner has violated any regulation or order of the Board, any condition of a certificate, any provision of this chapter, or any order of a court, where such violation results in a release of harmful substances into the environment or poses a substantial threat of release of harmful substances into the environment or presents a hazard to human health or the violation is representative of a pattern of serious or repeated violations which, in the opinion of the Board, demonstrates the owner's disregard for or inability to comply with applicable laws, regulations, or requirements;

2. The owner has failed to disclose fully all relevant material facts or has misrepresented a material fact in applying for a certificate, or in any other report or document required under this law or under the regulations of the Board;

3. The activity for which the certificate was issued endangers human health or the environment and can be regulated to acceptable levels by amendment or revocation of the certificate; or

4. There exists a material change in the basis on which the permit was issued that requires either a temporary or a permanent reduction or elimination of any discharge controlled by the certificate necessary to protect human health or the environment.

(8a) To issue special orders to owners (i) who are permitting or causing the pollution, as defined by § 62.1-44.3, of state waters to cease and desist from such pollution, (ii) who have failed to construct facilities in accordance with final approved plans and specifications to construct such facilities in accordance with final approved plans and specifications, (iii) who have violated the terms and provisions of a certificate issued by the Board to comply with such terms and provisions, (iv) who have failed to comply with a directive from the Board to comply with such directive, (v) who have contravened duly adopted and promulgated water quality standards and policies to cease and desist from such contravention and to comply with such water quality standards and policies, (vi) who have violated the terms and provisions of a pretreatment permit issued by the Board or by the owner of a publicly owned treatment works to comply with such terms and provisions or (vii) who have contravened any applicable pretreatment standard or requirement to comply with such standard or requirement; and also to issue such orders to require any owner to comply with the provisions of this chapter and any decision of the Board.

(8b) Such special orders are to be issued only after a hearing with at least thirty days' notice to the affected owners, of the time, place and purpose thereof, and they shall become effective not less than fifteen days after service as provided in § 62.1-44.12; provided that if the Board finds that any such owner is grossly affecting *or presents an imminent and substantial danger to* (i) the public health, safety or welfare, or the health of animals, fish or aquatic life; (ii) a public water supply; or (iii) recreational, commercial, industrial, agricultural or other reasonable uses, it may issue, without advance notice or hearing, an emergency special order directing the owner to cease such pollution *or discharge* immediately, and shall ~~hold~~ *provide an opportunity for* a hearing, after reasonable notice as to the time and place thereof to the owner, to affirm, modify, amend or cancel such emergency special order. If ~~the Board finds that~~ an owner who has been issued such a special order or an emergency special order is not complying with the terms thereof, ~~it~~ *the Board* may proceed in accordance with ~~§ 62.1-44.23~~ , *and where the order is based on a finding of an imminent and substantial danger, the court shall issue an injunction compelling compliance with the emergency special order pending a hearing by the Board. If an emergency special order requires cessation of a discharge, the Board shall provide an opportunity for a hearing within forty-eight hours of the issuance of the injunction .*

Senator WARNER. Mr. Chairman, I would also like to ask unanimous consent that my entire statement be incorporated into the record. The Chair very carefully covered the basic points of this hearing, and I again express my appreciation to you on behalf of not only the citizens of Virginia, but the United States, as we look into the necessity to perhaps add further authority to the Federal agencies overlooking this problem, the protection of the environment.

I thank the Chairman.

Senator REID. Senator Warner, your statement will be made a part of the record in its entirety.

[Senator Warner's statement follows:]

OPENING STATEMENT OF HON. JOHN W. WARNER, U.S. SENATOR FROM THE COMMONWEALTH OF VIRGINIA

Mr. Chairman, today the Subcommittee will hear testimony concerning a case that I have spent much of my time dealing with—that of the Avtex Fibers plant in Front Royal, Virginia. I want to thank the Chairman of this Subcommittee for granting my request for a hearing to review this situation.

As you know, Mr. Chairman, when I requested this hearing, I asked that the Subcommittee focus on the Avtex situation as a case study of the difficulties involved in environmental enforcement. Specifically, I thought that the Subcommittee could greatly benefit from asking whether any of the environmental laws that came into play in the Avtex case—the Clean Air Act, the Clean Water Act, the Toxic Substances Control Act, or any of the hazardous waste or Superfund laws—need to be amended to ensure that federal and state agencies charged with environmental enforcement could do their job.

It is my belief that the answer to this question could be extremely helpful to other cases around the country. Moreover, addressing this question could generally help to improve the federal-state relationship in environmental enforcement. I should stress that by improving enforcement, I mean that the federal and State governments aggresively and successfully enforce the environmental laws, without unnecessary intrusion on private property.

By now, most people know the story of Avtex quite well. Since 1940, the plant located on the banks of the Shenandoah River in Front Royal, Virginia, was the sole source of carbonized rayon for the Department of Defense and, eventually, NASA's Space Shuttle program. The plant was a major employer in a relatively small town. However, over the years, it came to have some serious violations of the environmental laws.

Residential wells and groundwater became contaminated in the 1970's leading to a listing on the Superfund National Priorities List in 1986. The tall stack at Avtex emitted over 50 million pounds of carbon disulfide, a toxic air pollutant, per year. PCBs were detected at the site in the mid 1980's. Finally, last year, Avtex shut down its plant because it was unable to cease illegal discharges into the Shenandoah. Soon thereafter, the company declared bankruptcy and left EPA to shut down the facility.

Mr. Chairman, we do not need to review all of these facts again today. Instead, it my hope that the witnesses testifying today—all intimately involved with this case—can provide us with some positive insights about the lessons learned from Avtex. Only with this review can we hope to avoid situations like this in the future.

Thank you, Mr. Chairman.

Senator REID. We also have a statement from Senator Robb which will be included in the record at this point.

[Senator Robb's statement follows:]

Charles S. Robb

STATEMENT OF

SENATOR CHARLES S. ROBB

BEFORE THE

SUBCOMMITTEE ON TOXIC SUBSTANCES,

ENVIRONMENTAL OVERSIGHT, RESEARCH AND DEVELOPMENT

OF THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

JUNE 20, 1990

Mr. Chairman and Members of the Subcommittee, I am pleased to have the opportunity to submit this testimony on the effectiveness of existing federal law in addressing serious pollution problems, like those associated with Avtex Fibers, Incorporated of Front Royal, Virginia.

The handling of Avtex represents an important case study in the problems faced by federal and state agencies seeking to enforce their respective regulations simultaneously. The clear lesson of the Avtex case is that state and federal authorities need to communicate better and to coordinate their surveillance and enforcement efforts.

The Avtex Fibers plant is located in a residential area of Front Royal, along the banks of the South Fork of the historic Shenandoah River. At the time of the plant's closing, Avtex-Front Royal was producing almost a third of the nation's

rayon, and was the primary supplier of carbonized rayon yarn to the Department of Defense and NASA. The plant employed more than 1300 workers.

In early November, 1989, the State Water Control Board revoked Avtex's National Pollutant Discharge Elimination System (NPDES) permit. Shortly after 4 p.m. on November 10, 1989, Avtex turned the electricity off on the 440 acre facility, leaving thousands of gallons of liquid hazardous waste in unlined basins and storm drains, thousands of tons of PCB-contaminated soil, hundreds of drums of toxic chemicals, and other dangerous (and often unknown) substances. An EPA hazardous materials emergency response team was dispatched immediately, and stabilized the site. But the question remains: How was the situation allowed to reach such desperate levels?

Avtex's problems began around 1980 when the federal government banned PCBs (polychlorinated biphenyls) after scientists linked them to cancer and birth defects. EPA records indicate that PCB leaks were discovered at the Front Royal site in 1986 and 1987. Significantly, the September 1986 leakage into the Shenandoah River was not reported to Virginia's State Water Control Board, the state agency charged with monitoring and enforcing the federal Clean Water Act. Because the Shenandoah serves as a major supply for the Washington, D.C. area's drinking water, these leaks posed a potentially serious threat to many Virginians.

I firmly believe that this lack of communication could have been avoided.

Since 1975, the Commonwealth of Virginia's State Water Control Board has been charged by EPA with the responsibility of administering the National Pollutant Discharge Elimination System (NPDES). In the end, the State Water Control Board estimated that Avtex violated its NPDES permit by allowing 2,000 illegal discharges into the facility's storm drains, which empty into the Shenandoah. If the SWCB knew what EPA knew -- when it knew it -- the water control board would have been able to act much sooner than it did.

In closing, I want to take this opportunity to applaud the efforts of the Ranking Member, my colleague, Senator Warner, whom I joined in requesting that this hearing be held. Finally, Mr. Chairman, I am glad that you and the Subcommittee have taken on the task of further investigating the events surrounding Avtex. It is my hope that similar cases can be better handled in the future.

Senator REID. We would now ask those witnesses from EPA to come forward, led by Edwin Erickson, the Administrator of Region III of the Environmental Protection Agency.

Would you please introduce those with you?

STATEMENT OF EDWIN B. ERICKSON, REGIONAL ADMINISTRATOR, REGION III, ENVIRONMENTAL PROTECTION AGENCY, ACCOMPANIED BY STEPHEN WASSERSUG, DIRECTOR OF REGION III HAZARDOUS WASTE MANAGEMENT DIVISION; AND JAMES M. STROCK, ASSISTANT ADMINISTRATOR, OFFICE OF ENFORCEMENT, EPA

Mr. ERICKSON. Yes, I will, Mr. Reid. Good morning.

With me on my right, your left, is Stephen Wassersug, who is the Director of EPA Region III's Hazardous Waste Management Division, who will discuss the details of plant layout and cleanup history. To my left and your right is James M. Strock, who is an Assistant Administrator in the Office of Enforcement, EPA headquarters, who will discuss the future generic directions of enforcement issues at the Avtex site, and as they relate to the national picture.

This site, as you well know, represents an extraordinary example of challenges and complexities presented by environmental problems in the air, soil, surface waters and ground water, all at the same location, and resulting from the same operation. This site also represents a compelling example of the challenges presented by the different jurisdictions of State and Federal Governments and by the applicability of a wide range of Federal and State laws.

The site is a 440 acre site, 60 acres under roof, with 85 acres of lagoons and fly ash piles. If I may, I would like to use the chart, and if I may come forward to refer to that, I would appreciate it.

To try to illustrate the complexity of the problem, the list in the left-hand column is some of the pollutants found so far at the Avtex site. They are: PCBs, carbon disulfide, sulfuric acid, sodium hydroxide, waste viscose, ash containing heavy metal sludge——

Senator REID. What is waste viscose?

Mr. ERICKSON. Waste viscose is an end product of the process itself, where they ground the wood pulp and then treated it with various chemicals and extruded the fibers. That which is left over was termed waste viscose, and is placed into lagoons on the site.

There are a number of applicable laws that will reduce—and have reduced—the presence of the waste viscose. These include, in the area of water, the National Discharge Elimination System, the Toxic Substance Control Act, Superfund, air emissions under the Clean Air Act, and the NPDES situation.

In the third column are listed the jurisdictions under which each of these Acts are operated. They are, of course, the State for the water, as a delegated program from the Federal Government; the Federal EPA, the situation with the Superfund cleanup, and I am pleased to state for the record that this has been a cooperative effort between EPA and the Commonwealth of Virginia.

Air emissions is under the State, and the Federal Superfund and EPA also in terms of the sulfuric acid and sodium hydroxide—there is an OSHA requirement about handling of materials.

Superfund cleanup, again, Federal EPA, and then water, going back to the State, and zinc, again, since it is a water discharge, a State-delegated process, and Federal EPA with the Superfund cleanup.

Then the sources are listed in the final column. They range from transformers to dryers to the incinerator to the stack to the feedstock process, power plant, and then finally, the processed waste. So there is a wide range of sources of all of these materials. These are presented to you so that we hope that we can give some indication as to the complexity of the site, and I would ask Mr. Wassersug if he would then pick up at that point and talk to you about the complexity of the process, about what has occurred, and our plans for the future.

Thank you.

Mr. WASSERSUG. Thank you, Mr. Chairman. Let me also use the chart.

The first picture is an indication of an aerial view of the entire site. Here you will see the 440 acres, all displayed, of the Avtex site, with two distinct parts. This is the lagoons in terms of where much of the waste was disposed, and this is the area where the manufacturing facility was located.

Senator REID. Where is the river?

Mr. WASSERSUG. The river is located right down through here, where we had Outfall 1, Outfall 3, and Outfall 4—Outfall 4 for the fly ash, and 1 and 3 for other materials, and also the wastewater treatment plant.

Senator REID. Off the subject a little bit, at the maximum how many people were employed there? Do you know?

Mr. WASSERSUG. I believe it was around 1,300 at its peak. That was at the time of this incident. It had fluctuated to higher levels, and somewhat lower, over a period of years.

One of the things here that you will note, of course, is that—we talked about the runoff, and we have the problems in the Shenandoah itself. Over here we have homes in this area and all through here, where the ground water—actually, from the viscose basins, down through here—went under the Shenandoah and contaminated the drinking water in this area, in these homes. You will note the proximity of the other homes and the recreational fields as well. This is where the large stack was located, where the carbon disulfide emissions came from, and these are some of the other various viscose basins in and around the plant.

For a larger blowup of the viscose basins themselves, you will note that this is Viscose Basin No. 10, and again, this is the off-spec material of viscose in the production of the rayon. This is the material that was not desired, or some of the waste material, going into a fairly large basin.

As you have indicated, certainly, we are dealing with a contrast in an area that is quite a pristine, beautiful area against a viscose basin located here.

Again, another viscose basin, and one of the concerns we have here would be to show you that there is no berm, no high-enough berm, since we are concerned about water getting in here and any runoff contaminating not only the ground water under the basins, but also the surface water in and around the basin.

You can see some of the plant production facilities through here. You can see that some of the facilities are somewhat antiquated, as such, and you will also note that the stack is located here, where the carbon disulfide came from.

I also have a number of smaller pictures which I will hand up to you, if you are interested. What they really show is some of the deterioration throughout the plant. They indicate some of the particular problems regarding the use of various acids and bases. They indicate some of the pipelines—and I think one of the things we have to deal with is a very significant amount of deterioration that has occurred in the plant. Some of that deterioration, certainly, is going to have to be removed. Some of the structures, perhaps, are unsafe as well, and much of the pipeline. There are several thousand miles of pipeline in that plant.

What I would like to do in another minute is just to show you what we've done at this point in terms of our actions at the plant in four different phases.

At this point we have broken down our activities in a four-phase process. The first phase was the ground water contamination from the lagoons, as I mentioned earlier. That had undergone some work in the past. We have completed the remedial investigation and feasibility study. We are looking to do the ground water pumping in July of 1991. Basically, this will deal with the ground water problems at a cost of $10 million.

The second phase of the operation—and all four go on at the same time—but the second phase of the operation deals with the emergency response. This is when the plant shut down. These are the activities we were involved with. Certainly, there was a threat of fire and explosion. We were immediately on the site and worked through the site security issues, removing the bulk chemicals at the plant. There are still a number of chemicals that have to be removed from down below, inside the lagoons. Also, we are operating and involved in the operation of the wastewater treatment plant to ensure that there is no runoff from the plant continuing to go into the river, as well as decommissioning the carbon disulfide tanks, some of the sludge bottoms that still remain here, finding a way to do that. We are looking to July of 1990 to do that. This is at a cost of about $8 million, our estimate.

The third phase is the drum disposal. We still have 2,800 or so drums remaining on the site. They are in buildings at this time. They have been basically overpacked, so in fact we do not have the threat of fire and explosion as such. However, the important thing is to get those drums removed from the site, as well as dealing with some of the other surface cleanup that is involved.

Senator REID. I've seen that, but nobody has been able to tell me what's in the drums. Do you know?

Mr. WASSERSUG. There are a number of wastes in the drums. I believe there are metals in the drums, a number of sludges in the drums. I think they contain a vast array of various wastes. You saw on the earlier chart about the zinc, the metals, the sodium hydroxide, the sulfuric acid. I believe it's a mix, in a way, of many of these thins.

Senator REID. Are the barrels labeled?

Mr. WASSERSUG. I believe they are marked in terms of what has been put into the drums, as best we can. That's correct. That's part of what we had to do, as well, as we bid the job, so the appropriate contractors would know what they were going to handle for proper disposal.

The last phase, which is the large, critical phase of the whole operation which will deal with the entire surface cleanup, perhaps additional groundwater problems, is—we originally started this out, of course, in dealing with an abandoned lagoon area, never thinking from the Superfund standpoint that we had a bridge in the nature of an operating facility that, of course, is now closed. So once upon a time we were dealing with perhaps 60 acres of abandoned lagoons, and now we're dealing with approximately 440 acres of the total site, which could be several miles across. To that, we are involved with some very significant studies, which include the Shenandoah Water Quality Assessment——

Senator WARNER. That's the amendment that I put on last year.

Mr. WASSERSUG. That's correct.

Senator WARNER. And you're now fulfilling that, and you hope by what date to have an assessment?

Mr. WASSERSUG. Well, what we're looking at is to fulfill by July of 1990, to get an assessment of water quality standard violations. In terms of the ecological assessment, that has been built into the remedial investigation feasibility study, and that will be completed between the 1990 and 1992 dates as part of the entire study, because it is so vast, it is so complicated, and so much data has to be gathered in order to do that.

Senator WARNER. Again, this is going from the plant site to distances down the river to determine deposits on the bottom of the riverbed that presumably emanated from this industrial site, and what, if anything, can be done to remove those contaminants from it.

Mr. WASSERSUG. That's exactly right. And I must also say that we're working very closely with both the Commonwealth of Virginia, as well as the State of West Virginia, in terms of that study, in terms of gathering that kind of information.

Thank you very much.

Senator REID. Are there other factory sites in the area?

Mr. WASSERSUG. In the immediate area, another factory site? We have some other Superfund sites in the area. I don't know if we have any particular factories that are causing any environmental problems such as this, although I assume there are some other companies within the county-wide area. We do have another Superfund site not too far away.

Senator WARNER. You referred to working with the State, and you used the word "cooperative" repeatedly. We assume that it's been a harmonious relationship from the very beginning between the various Federal departments and agencies and the Commonwealth of Virginia?

Mr. WASSERSUG. Yes. In terms of the work that we've been involved with, which is the initial investigation of the lagoons, that was certainly very harmonious. In terms of responding to the shutdown of the plant, they had notified us that they were working on the shutdown of the wastewater treatment plant that might result

in a shutdown of the plant, and were we prepared to take action if necessary? We had responded that we were, so we were working with them on that, as well, and now we are working with them on the entire investigation of the plant.

Certainly, there are issues that deal with individual air and water laws which are separate issues, different than the Superfund issue, but in terms of the overall Superfund coordination and response, I would say they've been excellent.

Senator WARNER. Do any of the contaminants that we have thus far ascertained to be present pose a threat to the personal safety of individuals living or working in the area of this industrial site today?

Mr. WASSERSUG. I think at this time we have stabilized the facility so that we don't have an off-site threat. I think that was the key. Now, of course, what is in the Shenandoah in terms of fish tissues, PCBs, and other things, certainly those are of concern, and the Commonwealth has dealt with that in terms of fish consumption. Other issues, such as the carbon disulfide being emitted from the stack, the shutdown of the plant eliminated that. Other issues regarding additional wastewater discharges from the plant surface, that has been alleviated with the establishment of the treatment plant. Certainly, there are still some underground problems. I would say there are underground groundwater problems. However, people are not drinking the groundwater that came under the Shenandoah from that site, to my knowledge. However, in the additional studies that are going to be done, we are still concerned that there may be other ground water problems that come from the old operation of the plant that we still don't know about. But we think we've stabilized the site, so certainly there is no immediate threat, whether or not there is a long-term threat. We still need to handle issues like the carbon disulfide that is in the sludge bottoms of the tanks, and that's why we're taking a great deal of time and care in terms of how to process and handle that, just as we did with the disposal of bulk materials.

Mr. ERICKSON. That concludes our remarks.

Senator REID. I have a couple of questions that any one of the three of you can respond to.

Recognizing what took place there over the 50-odd years that the plant operated, do you believe the EPA had adequate authority to take the necessary actions at Avtex?

Mr. ERICKSON. Yes, sir, I believe we did. If I may address the issue that Mr. Wassersug alluded to a moment ago, it is that there are, of course, within the State, and within EPA, various arrangements. There are departments within the State that handle water, there are departments that handle air. The same thing, of course, is true within the EPA, in terms of our arrangements.

There is in a sense a vertical addressing of these issues. While we collect numerous pieces of information, there are times when that information is not shared totally and completely across these lines that I have mentioned. So we have learned, I think, that we need to do at least two things. One is to gain a much better mechanism to communicate those pieces of data across those lines within the Federal Government, and then from the Federal Government to the State governments.

We also need to begin to focus on the issue of approaching these types of facilities as a facility, and not just as an environmental medium. We need to look at the whole facility, and then to develop the capability—whether it be by computer or by human action—and to do that in a very efficient manner.

The cross-media approach to our enforcement within Region III EPA is of great importance to us, and this site has spurred us on to initiate, and to try to institute that kind of approach to facilities such as this Avtex facility.

Senator REID. We've established that the Commonwealth of Virginia did not have injunctive authority at the time, isn't that right?

Senator WARNER. The statute that I put into the record earlier, Mr. Chairman, indicates that we have now strengthened it. I presume if it is strengthened, there was a question of the adequacy.

Senator REID. Maybe we can ask the representative from the Attorney General's office. My question though, regardless of what was going on in the State, did the EPA have adequate authority to apply for injunctive relief, to have closed this facility or a facility like it?

Mr. STROCK. Mr. Chairman, I think the EPA does have adequate injunctive authority in this case. There is a complication that arises in practice where the State and the EPA have memoranda of agreement that define the circumstances under delegated programs where EPA might enter. However, in the context of an endangerment or continued violation, EPA does have authority. The question is how it is best used.

Senator REID. Is it the same memorandum of understanding with every State, or do they differ?

Mr. STROCK. They differ, they are not profoundly different in my understanding. There is a standard form.

Senator REID. I guess the question I have to the EPA this morning is, having gone through this experience at Avtex, we want to make sure that the law is in adequate shape that in the future, if things like this come up, the EPA can respond without any question of legal authority. This would be an appropriate time, if in fact there are some i's that need to be dotted, t's that need to be crossed, or new paragraphs written. This is the time to tell us, because certainly this is an illustration of problems that can arise with old plants.

Do you need anything done with the law?

Mr. STROCK. Sir, I would say that from our perspective, we do not need new legal authorities at this time. They are adequate. What we do need to do is in the face of a series of new realities, this example brings together into one place to better apply our existing legal authorities.

The one area I would say that in my personal judgment there may be some uncertainty over legal status, but it goes beyond EPA, relates to questions of contractor relations in these kinds of cases with the Government. That is something we intend to look into further. I do not believe that would involve any specific environmental statutory adjustments.

Senator REID. One of the questions we all have is, when you find that there are eminent health hazards to people and the environment, there are times you have to use strong enforcement tools, de-

spite the fact that the company may be a large employer who has been in business for a long time. How do you develop criteria for the EPA to help it make its decision in these kinds of cases?

Mr. ERICKSON. From a regional perspective, Senator, I think I would address that on the basis of a difficult judgment that needs to be made. There are these judgments on an individual and a facility basis that do need to be made, and we are, of course, prepared to make them.

While the environmental laws don't necessary indicate we must take into consideration or should take into consideration the economic aspects, it is a consideration through our thinking and judgment process that we are aware of. So it comes back to the individual judgment in each of these situations.

Mr. STROCK. Mr. Chairman, can I add one thing to that? I know you have had a very close personal interest in focusing on so-called "cross-media" questions. Traditionally, EPA, as you know, has handled its enforcement as other parts of the agency have been handled, on a medium by medium basis—water, air, in many ways very separated internally. One thing this case clearly demonstrates to us is the point I know we have worked carefully on with you, that there is a great benefit to having much closer integration and cross-media work. We are beginning, in the enforcement area, to do that in several ways.

The first is that we are putting in place screening committees throughout the regions that are charged with putting together data as they bring cases forward on the various statutes that might be implicated. In the past they would quite often bring it through the water program solely, and a case would be focused on in that way. Clearly, in this kind of situation, that would be inadequate. We are aiming to have those processes in place across the country by October 1.

I just got back from our regional office in Boston yesterday, and they are already finding a great deal of new knowledge just by starting this process, and preparing internal enforcement documents that require that kind of cross-medium check.

One other benefit to that I would offer to you is that the communication between the State and EPA region has also tended to be the same way. The water program in the State, the water program in the region, and no one, again, focusing on the whole panoply of issues. To the extent EPA continues to do business in a growing and cross-media way, that will necessarily affect the communication the State has. We hope it would have a similar impact on their work as well.

Mr. WASSERSUG. Mr. Chairman, can I add something, also?

Senator REID. Please.

Mr. WASSERSUG. In our investigations, as we are involved with Superfund sites, or sites involving hazardous waste, we also go in now, expanding our opportunity. We believe that we have a statute there that could be read very broadly in terms of a potential risk or a potential risk from a release to the air, to the water or the groundwater.

What we are doing with a number of sites is making sure that as our people go in, they are not looking and focusing on the one medium, a groundwater issue related to an abandoned lagoon as in

a case like this, but in expanding their efforts in certain instances to try to decide whether or not there is a greater risk that may be associated with the site.

The next step is designing a study or investigation that will try to deal with the risk question at the site, and use all the available statutes, the strongest as well as the weakest, to try to define, and then enforce against that source.

Senator REID. I am concerned there may be other Avtex-like facilities in the country. Is there any way EPA, with its limited resources and manpower, is able to catalog to see if there are other facilities like this? I am sure there are.

Mr. WASSERSUG. Yes, while I cannot say there is another one exactly like Avtex, we certainly have a number of other chemical plants in Region III which have similar types of problems. Although they did not manufacture rayon, certainly they have abandoned the facilities, they have left piping and drums, they have contaminated the surface water, the ground water, and have created some air pollution problems. As part of our investigation, we are treating those as a multi-media effort. We look at some major expenses involving the cleanup, we look at some major enforcement actions, and I think there is no question but for the fact that we have these sites.

I think our other concern is the potential for places to do the same thing, which is, we may have some operations out there which are marginal today, and in fact may create situations for us in the future. We are also involved in chemical safety audits, to try to determine if we have facilities that may also cause certain situations in the future, and try to deal with these in a preventive, support mode, before they result in the same conditions we have at these other sites.

Senator REID. Mr. Strock, outside Region III do you think the EPA is keeping on top of these types of facilities?

Mr. STROCK. Senator, I cannot respond too specifically to your exact question about facilities just like Avtex.

Senator REID. Well, you understand I am sure, that we know there were not others like that. That's one reason it was open as long as it was, because they produced a product that was needed badly in the space and defense programs.

What I mean is are there other types of manufacturing facilities that have spoiled the air, water and the land, and are they still in operation, and are we keeping an eye on them?

Mr. STROCK. Well, we're clearly beginning to have a number of our cases that are multi-media. One example is the *Inland Steel* case in Region V, there is the recently-filed *Marine Shale* case in Louisiana. So we are clearly seeing it from the perspective as we go and try to take a cross-media approach that there are more companies like this.

My guess would be that as the Regions institute the cross-media screening approach and as we at the headquarters office complete a unified data system that does not now exist between the various programs, we will be able to pick up a larger number of facilities that do have existing multi-media environmental problems.

Mr. WASSERSUG. There is one other initiative we have going on which I believe is also going on nationwide, and that is to look at

the toxic release inventory, which will capture information like it captured carbon disulfide emissions going into the air, water and soil, and to gather that and determine which is creating the greatest problems out there against environmentally sensitive areas, and setting priorities to inspect plants and enforce against plants as well on that basis.

Senator REID. Senator Warner.

Senator WARNER. I'd like to follow on to the Chairman's last question, which I think is pivotal to this inquiry today. As we learned from this case study of Avtex, I personally went into this plant within 24 or 48 hours after it closed its doors. Although I had lived in the area, I had not been in there before, at least not internally. I had been on the grounds. As a lay person, I found it shocking—what I viewed with my own eyes. The management freely discussed that they could no longer operate this machinery because it was broken down, it was rusted, it leaked, and was presumably contaminated.

When we have probable cause that a situation exists behind the closed gates of an industrial facility, do you have the authority, based on that probable cause, to go in and look with your own eyes, to make a determination, if in fact behind the closed doors there exists this potential for contaminant release?

Mr. WASSERSUG. Yes, I believe that what we are doing here is, as I indicated, part of the mission is to go in behind those doors, and if we have identified a release that might be coming from the plant, or certain if we suspect there are any particular problems—if they have a permit for water discharge, to go in and look behind that and see what other problems might exist.

When you get into the process question of a process area, where there may be a manufacturing process, not all of the types of materials that are in the manufacturing process are considered a waste. Many of these may be products or subproducts which could create the same environmental problem, air, water releases or other things. What we are trying to do through the chemical safety audit approach is to go into these types of operations and begin to see whether or not these types of problems that exist in a plant may create a potential release or a release that might cause a potential risk.

If our people feel there is a release that might occur and cause an accident, potentially, cause some sort of threat to the community or something of that nature, they may not have a permit for this, but beside that, it may be of a nature that would be so significant that we would look at the Superfund statute in trying to deal with a release that may cause a risk. We are looking at the potential for that to happen.

Senator WARNER. Let me just rephrase the question. You go into a plant, all of a sudden, you come up to a closed door. It has a sign on it that says "Do Not Enter." It may well be that they are trying to protect proprietary interest, which is essential to the corporate structure. Behind that door they may have a bloody mess that they don't want anybody to see. Do you have the right to open that door, and go in to see what is there?

Mr. WASSERSUG. Well, my experience is that we have the right to get the necessary search warrant or whatever, if we have some

cause or nature of cause. Often we may receive some sort of a tip from an employee or something of that nature, where we will go into a facility——

Senator WARNER. Your answer is?

Mr. STROCK. Well, I believe we have the right to go into a plant where there may be environmental problems.

Senator WARNER. In summary, then, are situations like the Avtex situation covered?

Mr. STROCK. Senator, I would say lessons we are still learning, because we are working on several areas, one is clearly speaking from the enforcement angle, we need to take a very close look at the existing State-Federal relationships and how they are institutionalized. We are indeed planning a series of meetings on that with key State officials from across the country.

To put that in perspective, Senator, as you know the EPA is presently getting pulled in two directions. One, there is a very articulate point of view advanced by Attorney General Humphrey of Minnesota and others that would give the States increasingly independent roles in enforcement in the environmental area.

Here this morning, you see we are pulled toward a bit more centralization, to make certain that we are making sure the right thing is being done, and that we are properly accountable to you. I think secondly, from the enforcement side, we have to look very closely at our inter-agency relations in the Federal Government in two ways. One is, this case involved some work by OSHA as well as the EPA. We are presently working with OSHA to try to institutionalize data sharing and put together a memorandum of understanding this year. We believe there is a lot of overlap in this area that may have in the past not have been creatively used.

There is also a need on the inter-agency level for us to take a close look at the issues related to Federal facilities. We are centralizing that in our office internally. This presents a bit of a permutation with the contracting that frankly we are trying to learn about that very fact. These are not issues EPA traditionally has taken the lead in. But we need to do so rapidly, that's clear.

We are also taking a close look at our data sharing with the regions and the various EPA programs to make sure we get information that might be useful to enforcement, that they will not have understand with significance.

Senator WARNER. Well, in summary then, this tragic case and the losses to the environment, at least out of this grew some intensive introspective study of your own procedures and policies, and relationship to the State. So there have been some benefits derived from this extraordinary case.

Mr. STROCK. Yes, Senator, I would say that clearly through the attention you and others have given to this, and are learning about this case, it has clearly focused us on what we hope will be constructive directions. We will want to continue to report back to you, of course.

Senator WARNER. Now the last question, Mr. Chairman, if you will indulge me, is about the contracting. I looked into some Federal regulations regarding contracting and procurement, and whether or not we can make the various tier of subcontractors more accountable as we go from the prime down to the sub-structure. In

this case, there was a material that was central to the defense and space programs. Indeed, when this case broke, I was contacted by the head of the space agency. He made it very clear that the shuttle flights, involving hundreds of billions of dollars, would have to be delayed. He had it down right on the line chart, unless this particular raw material continued to flow into the system.

Well, that's history now. But the question is, this particular prime contractor, in this instance, the Federal Government contracted with them—I will not put their name in the record. They in turn subcontracted and Avtex was way down at the bottom of a long chain of contracts. What can we do as we write those contracts to make sure there is accountability as we go on down the line?

Mr. STROCK. Senator, regarding the question you raise with respect to the Federal acquisition regulation, we have begun to look and are looking at the contracts involved in this situation. At least some of these contracts have provisions in them by which the contractors have committed to compliance with the environmental laws, and further, they are supposed to be screened before they get a contract to at least assure under the Federal acquisition regulation that they are not presently barred from receiving contracts or listed on EPA's violator list.

The issue that I would recommend our agency work on is the accountability in those contracts for their commitment to comply with the environmental law.

Senator WARNER. That's precisely my point.

Mr. STROCK. The agency is a part of a group called the Civil Agency Acquisition Council that includes the non-defense agencies. I am going to see that we raise this issue in that context. It is my understanding that we have to go through a separate process with the defense agencies, but they are related. I would appreciate the opportunity to report back to you on that. As I stress, that is a novel area for us, that this case has raised.

Senator WARNER. Thank you very much. Mr. Chairman, for the record, I have also ascertained that the Department of Defense is well along with securing a second source. It may be that this crisis with Avtex has been a learning experience for the Department of Defense to make sure that when you have a material that is so essential to our national space and defense programs, that there is more than one producer of a raw material. I am optimistic that the Department of the Air Force, which is managing this, will soon have on line in every sense a full test program enabling a second source to go forward.

Senator REID. The NRC has a program that I think is excellent, relating to tips they receive from inside plants. Does the EPA have a formal allegations management process for receiving these tips that there is something going on that is wrong inside the plant?

Mr. WASSERSUG. Yes, we have various hotlines that go to our criminal investigators, and they are followed up on through that manner.

Senator REID. Senator Warner covered that, and I think it is something we have to look at closely. With his important position on the Armed Services Committee I think we have to recognize

that the Defense Department is going to have to do a better job of marshaling their assets.

You are familiar, Senator Warner, with the situation in Henderson, Nevada, when the Pepcon plant exploded. They made a product called ammonium prochlorate. They were one of only two plants that made the product. The other one was right next door to them, and it was very fortunate that they were not both blown up.

We have the same situation here. This was the only producer, we are told, of this product. I think we all know the problem, in the Defense Department, they are short on money, they need the product, and I am sure the last thing on their mind was whether or not the environment was being damaged as a result of the product we needed. But we are going to have to somehow have them become more responsible in that regard. That is not your responsibility, but it is something that you can perhaps work with us on.

In dismissing this panel, let me just say that the subcommittee will certainly monitor your initiatives. We would appreciate your supplying us with the necessary information as it comes in from the field as to these other plants that are problematic and other areas that we have discussed here today.

Thank you very much.

Senator WARNER. Mr. Chairman, might I add that I have had extensive contact with the EPA on this issue, and I want to thank you personally, and on behalf of the other Members of Congress who have been in contact with you on this problem.

Mr. ERICKSON. Senator, we appreciate your interest in this issue, and it has truly been a learning experience for us. I am sure we will advance the cause of environmental protection through it. Thank you.

Senator REID. The next witness before the committee will be the Honorable Clair Guthrie, Deputy Attorney General of the Commonwealth of Virginia.

I see you have been very lawyer-like taking notes back there on all of this.

STATEMENT OF R. CLAIRE GUTHRIE, DEPUTY ATTORNEY GENERAL, OFFICE OF THE ATTORNEY GENERAL, COMMONWEALTH OF VIRGINIA

Ms. GUTHRIE. Thank you, Mr. Chairman. I appreciate the compliment. I think it is still a compliment to be called "lawyer-like" in today's world.

Senator WARNER. We welcome you. Mr. Chairman, this very able professional has been a tremendous help to me as I have worked long in this program. She merits recognition from two governors in Virginia dealing with this problem, and the Attorney General. We want to thank you for coming up here today.

Ms. GUTHRIE. Thank you, Mr. Senator. I appreciate those kind remarks. I will highlight later on how important we have found your role to assuring what measure of cooperation there has been in some respects, in certain areas where we did have some difficulties. I think I can echo as a preliminary matter the comments of EPA today that the cleanup situation is a situation of remarkable cooperation and leadership, particularly from the on-scene coordi-

nator, and from Mr. Erickson. I think we are on a road that I feel very positive about.

As you know, I am the Deputy Attorney General for the Commonwealth for Human and Natural Resources. In that role, I served as lead counsel in the Avtex case. I am here today to testify on behalf of Virginia's Attorney General, Mary Sue Terry, and she regrets not being able to be with you here personally to talk about this important issue.

I have a prepared written statement which I will submit for inclusion in the record, but with your permission I will summarize those remarks for you today.

Our involvement began in March of 1988 when this case was first referred to our office by the State Water Control Board for possible judicial enforcement arising out of water discharge violations, violation of the company's NPDES permit that related to outflows one and three, discussed earlier today.

At the time of the referral, we discovered, and in this respect I think our experience was somewhat similar to that of EPA, we discovered that our State agencies were vertical in their reporting and medium specific as well. At the time the State Water Control Board referred the case to us, we discovered we had some knowledge of enforcement problems, not only there, but also with air pollution, and with the Department of Labor and industry, and that waste management had been working with EPA since 1983 on the groundwater problems that were discussed earlier.

Moreover, it was clear at the time the case was referred to us in March of 1988 that the company was already in serious financial trouble, and had been for some time. Some coordination among our own agencies was necessary in order to be sure that whatever resources were available could be directed properly in order to redress some of the serious problems in some reasonable order of priority.

Once we became involved we worked with Governor Baliles in coordinating our compliance efforts and setting the State's policy objectives. We agreed at the outset that as long as the plant was operating, the most urgent concern for us was the health and safety of the workers at the plant. Although of equal importance, obviously, was that the company comply fully with all environmental requirements as expeditiously as technologically possible.

We hoped at the time we started that those two objectives could be met while the company was still operating. Ultimately, not all of our objectives were fulfilled. We began in March 1988 20 months of intensive effort by our office that resulted in the administrative revocation of Avtex' NPDES permit, the closing of the plant in November, 1989, the imposition of $5 million in civil penalties, nearly $1 million in fines for contempt, required expenditures to redress non-compliance of over $6 million, and after a long delay in one period between April 1989 and November 1989, our office participated in five court hearings, including an on-site visit by a State judge, a trial, and ultimately a two-day administrative proceeding.

As Senator Warner has already mentioned, one result of the tedious experience that we had with our own State judicial structure as a result of our experience there, because of the normal balancing that goes on in any kind of injunctive action, is that we discov-

ered that it would be to our advantage to change State law to enhance our ability to get a mandatory injunction. This is particularly true where there is an identified eminent danger of a problem as opposed to having to wait and show the problem actually existed before we could seek mandatory injunctive relief.

What, then, did we learn from this experience that might be relevant to this committee? We have four general recommendations and ideas for your consideration, some of which are harmonious and complement what you have already heard from the EPA here this morning. We agree that communication must be improved, both within the EPA itself, and between Federal and State authorities. As we indicated, we have had very extraordinary cooperation in the cleanup since the plant closed, and generally, I think we can say that just because of the statutory framework, the hazardous waste management area has been an area with probably the most careful day-to-day coordination, at least in terms of our experience across the board.

There were several things in the context of this experience that indicated that poor communication, both within the EPA and by the EPA to the States, did in some respect harm the State's ability and the EPA's ability to prevent problems before they occurred, as opposed to having to wait until after a problem surfaced. One example is the fact that we did not discover until the Spring of 1989 that there was a PCB problem in the Shenandoah River. We discovered it through routine fish monitoring.

We finally, after characterizing the river contamination and backing it up to the plant came to the understanding that the PCB contamination of the river could be linked causally to a December, 1985 transformer accident that dumped about 500 gallons of contaminated oil on a roof into the storm drains, that then ran into the river.

There was an EPA inspection conducted in September of 1986, and it appears from we have learned since then that the water people at EPA really did not know about the results of that inspection in terms of PCB contamination showing up on the ground, and the kind of facility approach they were talking about this morning I think would go a long way toward helping to begin to make sure the two sides of the agency have the same information. More importantly, ultimately, it is necessary for the State officials to have access to the same data in a timely way.

If that data had been made available to the water enforcement people at the State and Federal level at the time that inspection occurred, it is possible that the NPDES permit limits could have been amended to require monitoring for PCBs, steps might have been taken to identify the problem early, at a point before the contamination of the river was this extensive.

We recommend those efforts that have been begun by EPA be continued, and we applaud that.

Secondly, we agree that some serious attention needs to be given to the whole question of Federal contractors. It is not insignificant, as a fact in this case, as a case study, that we have a Federal contractor, and that Federal contractor was producing a significant strategic material. I certainly share Senator Warner's concern, and

your concern, Mr. Chairman, about accountability on down the line.

Here, this plant was closed independently, by the action of the company in October of 1988, and was reopened only because of $40 million in Federal funds being invested in that plant. In that circumstances, although it is clear there was a contract clause inserted when the plant was reopened requiring environmental compliance, it is not clear that there was as careful attention to assuring compliance with that requirement as one might hope.

Moreover, as I indicated earlier, without Senator Warner's role in the negotiating process during that period, two things would not have occurred, one very important. It was extraordinarily important to us when the plant reopened that whatever funds the Federal Government had identified within that transaction for environmental compliance be put in an escrow account so we can be assured that the money would in fact be expended on those matters that the company had identified as being critical to their environmental compliance.

We had some difficulty, frankly, a great degree of difficulty, in persuading Federal Department of Defense officials to escrow that money for us. Senator Warner was extraordinarily important in helping us to achieve that critical State objective.

Problematic within the negotiation process for reopening was that there was no State involvement, but for a meeting that Senator Warner sponsored. There was no face-to-face communication between the agencies engaging in refinancing that company and State environmental officials. This was true despite the fact that I personally, and our office, spent time encouraging both the company to invite State environmental officials in, and the Defense Department negotiators to invite State environmental officials in, to tell the Department of Defense and NASA what the real costs of compliance were.

The amount of money ultimately put by the company in its business plan was less than $6 million. We tried to tell people that was not even going to be minimally adequate, to begin. We had some difficulty with cooperation in that respect.

Accordingly, we think it is very important that there should be consideration, again, for preventive reasons, to strengthening environmental compliance requirements imposed on all companies wishing to bid on Federal contracts, that companies with patterns of practice of non-compliance ought to be declared non-responsive and non-responsible. Lack of environmental compliance must be pursued more aggressively as a ground for debarment.

There are two areas that deal with where we are now, and the difficulties that the State and the Federal Government have with the whole problem of how the cleanup will be financed. The final lessons we have learned are financial ones, and we recommend that the committee consider looking at Federal bankruptcy law to determine whether the costs of environmental cleanup are given a high enough priority in relation to other outstanding obligations.

Finally, we encourage the committee to look carefully at questions of Federal law related to how easy or difficult it is to get to the personal assets of corporate officials at a minimum to pay for cleanup.

In this case I think there was a pattern and practice of systematic neglect, and probably more accurately, carefully considered business judgments not to invest in environmental compliance. Over time, when those kinds of knowing decisions result in danger to public health and the environment, I think a question ought to be raised whether the law should make it so difficult to pierce the corporate veil as it now is.

Thank you very much. That concludes my formal remarks.

Senator WARNER. Thank you for your constructive observations.

Senator REID. Senator Warner, my disappointment is that these suggestions did not come from the prior panel. I have read your statement, Ms. Guthrie, I asked the prior panel, in a lot of detail, what we needed to do to strengthen the law, they said everything was great and nothing needed to be done. In reviewing your very detailed statement, that does not seem to be the case. Although your role is to talk about the State's involvement, you have done an outstanding job of indicating what the Federal Government's involvement was and what it should be in the future.

There are some things in your statement that need to be addressed in looking at the law as it might need to be changed. For example, you indicated that in December of 1985, Avtex had an explosion where PCBs went into the river. They had gone into the river before, and they had not reported that. This large dumping of approximately 500 kilograms went into the river and was only picked up because of some work that was being done by the State. According to you, however, Avtex continued with business as usual, having failed to report smaller leaks to EPA. They did not report the December disaster either to EPA or to the State.

I think we have to look at whether or not there are any criminal statutes that were violated. The statute of limitations has probably run at this point, maybe not. But I think we need to look at that. I don't think people can violate these laws with impunity. It does more than degrade the environment. It is damaging to the health and well-being of people.

I also think the statements you have made here are very illustrative. Avtex' mess, in your words, is staggering. PCBs contaminate 32 miles of that river. I think also another paragraph here is worth illuminating. One officer of the Front Royal corporation is seeking to start another venture on the site. The other officers have taken their salaries, plus whatever other value they may have received, and gone on to other pursuits, leaving the mess in Front Royal behind.

In the meantime, Avtex has sought the protection of the Federal bankruptcy court in Pennsylvania. In my prior life, I was a lawyer also, and I was always concerned about some of the things that could or could not be done in the bankruptcy courts. I had a bankruptcy practice, not a large one, but I did bankruptcy work. I think a sentence you have here on page 10, that says "Consideration should be given to strengthening environmental compliance requirements for companies wishing to bid on Federal contracts."

I think thirdly, you suggest that the Federal bankruptcy law should be amended to ensure that the costs of environmental cleanup are accorded a higher priority. I agree with you. I would ask that—while this should have been coming from the prior panel—I

would impose upon you that you would draft some more detailed suggestions and submit those to staff. We will consider seeing if we can look at amending the bankruptcy law.

Senator WARNER. Mr. Chairman, I just wrote that same note to my staff assistant here. I hope you and I can join together on that bill. We will give due and proper recognition as we introduce that on the floor to this very capable public servant. I share that. This is the type of advice she has given me now over a period of 18 months that I have been working on this case.

Ms. GUTHRIE. I appreciate the compliment. I have to say in all candor that the focus on the assets issues is really principally driven by, and the idea of, my boss, the Attorney General. She is extraordinarily concerned about the difficulties we are experiencing with this case and other cases in holding people financially accountable for the kinds of actions you see here. It is one of the real disheartening facts of legal life that occasionally our system operates in a way to protect people it should not protect.

At the same time, as Senator Warner pointed out at the outset, one has to be careful in these kinds of suggestions to balance, so that the important entrepreneurial and economic benefits of a corporate form and structure are not dissipated at the same time you are assuring that the bankruptcy law is not used as a tool by wrongdoers.

Senator REID. Thank you very much. We look forward to hearing from you.

Ms. GUTHRIE. Thank you so much, Mr. Chairman and Mr. Senator.

Senator WARNER. One other observation, Mr. Chairman. You and I might look at the taking of Counselor Guthrie's ideas and asking EPA to comment on them.

Senator REID. We certainly will do that.

Senator WARNER. There could be another side to this view, but I think it is important we ask the Federal authorities to comment on them. Maybe you could write a law review article out of this and submit it to the University of Virginia.

Ms. GUTHRIE. Thank you, Senator. This is actually one of the most interesting cases, and certainly a case study, for both lawyers and businessmen that I have ever seen.

Senator WARNER. Out of it, there were some valuable lessons learned by the State.

Ms. GUTHRIE. No question. Many of them were similar to the ones the EPA is learning about cooperation, not being so narrowly focused on the air that you forget about the water, and vice versa. I think there are some benefits that have come out of this situation, although obviously a lot of negative things have happened.

Thank you very much for your time.

Senator REID. The final witness this morning will be Mr. Dave Bailey, who is the Director of the Virginia Office of the Environmental Defense Fund.

Mr. Bailey.

STATEMENT OF DAVID BAILEY, DIRECTOR OF THE VIRGINIA OFFICE, THE ENVIRONMENTAL DEFENSE FUND

Mr. BAILEY. Mr. Chairman, Senator Warner and members of the staff, my name is David Bailey. I am the Director of the Virginia Office of the Environmental Defense Fund. I apologize to the committee—my travel prohibited me from getting advance copies of my testimony. I do have copies of my prepared text with me today to leave with you.

I would like to tell the committee that even though I now work for the Environmental Defense Fund, a non-profit membership organization, that I do come before this committee with a little bit of experience in the various aspects and roles people have had to play. I worked for the Water Control Board for approximately 13 years, five years of which I was director of enforcement for that agency.

Senator REID. The State agency?

Mr. BAILEY. Yes, sir. It is the State Water Control Board that administers the NPDES permit for Avtex Fibers and approximately 1,000 other dischargers in the Commonwealth of Virginia.

Senator WARNER. That was the Virginia Water Control Board?

Mr. BAILEY. Yes, sir.

I also spent 2 years working on the EPA civil penalty panel, which was designed in the mid-1970s to ensure comprehensive and consistent assessment of civil penalties for effluent permit violations under the Clean Water Act during the 1970s.

With the Environmental Defense Fund, I am an attorney and senior scientist, and of course have been involved in many issues in that respect looking at it from the non-profit viewpoint.

My comments will be very brief today. I come initially from the background of telling you that in our view, this case is essentially an enforcement problem. It has many complicating factors, but the plain fact for us is that the Avtex case is a long running enforcement problem. All of the issues did not arise in 1988 or 1989. They started way back in the 1970s.

What I would like to do in covering what I believe are three pertinent points, the technology issues involved, the EPA State relationship and the enforcement questions involved, is to give you an idea of the forces that are at play that result in the kind of situation that has occurred today. I believe very strongly that those forces still exist and that there is ample opportunity for other Avtex situations to come to the front.

To understand this, particularly beginning with the technology issue, we need to go back for a moment to the Clean Water Act in 1972. I will use principally the Clean Water Act to demonstrate these issues, because it is the easiest to show them. The Clean Water Act, which was passed in 1972, accomplished a very important function.

Prior to 1972, States had to worry considerably about the interstate competitive nature of imposing environmental controls. If a steel mill wanted to locate in Wisconsin, or to locate in Virginia, if Virginia tried to impose strict environmental controls on that steel mill, it could simply go to Wisconsin, or to any other State.

The Clean Water Act required that all industries develop what is called "best practical treatment"—a minimum level of treatment control which would be imposed on that steel mill whether it worked in Wisconsin or Virginia. It had a critical role of creating a level playing field insofar as pollution control was concerned.

What this did was make environmental costs, pollution control costs, a neutral in the scheme of things. It is a very important principle. After BPT guidelines were promulgated, EPA was to follow up, and did follow up, with what is called BAT, best available technology guidelines. These also applied equally to all categories of industry. The way they were implemented, in the 1970s, the BPT guidelines were fairly good and they were strongly enforced. EPA had specific enforcement policies to enforce them. But when BAT came along, in the late 1970s and early 1980s, there were a lot of economic pressures. The BAT technology ended up in what many people have called a warmed-over BPT technology.

The result of this was that instead of all companies in the United States continually building up with a level of equivalent pollution control, keeping the environmental costs of pollution control a neutral in the business decisions, the technology requirements were reduced. BAT did not significantly increase the technology requirements.

This triggered the second part of the Clean Water Act's requirements, and that is water quality standards protection. I believe, Mr. Chairman, that is what you are thinking about. If a particular State had a more stringent water quality requirement, then that industry located in that particular State had to meet that water quality requirement.

I believe it was envisioned under the Clean Water Act by its original drafters that water quality permit limitations would be more the unusual case. What has happened, because we do not have adequate and strong enough technology requirements is that water quality limiting permits are now more the rule than the exception.

As a result, as we went through the 1980s, and as we sit here today, many States are now back in the same interstate competitive problem that existed prior to 1972, because to protect their water quality, their streams, the Shenandoah River in this case, they must impose strict water quality standards. Industry always has the choice of looking for another place where they do not have to face those kinds of stringent controls.

That's all well and good. That's simply the way the United States is situated, and some companies will locate in different places.

But what it does cause is the States to make very serious and conscious decisions about how strict they will make their water quality standards, and how much protection they will provide for those streams, on the basis of very strong concerns for socioeconomic growth.

When we look at that technology background, that takes me to the second issue, the EPA-State relationship, which I believe is very much a focus of this particular hearing. In the 1970s, when EPA was first implementing the Clean Water Act, it was a very healthy what I would call "arms-length" relationship between EPA

and the States. Environmental Protection Agency was implementing a Clean Water Act that required significant change. They had to be tough, and they were tough. States had to be brought around to the idea that this was the law of the land, industrial dischargers and municipal dischargers had to be brought to that rule.

As we left the 1970s, though, and went into the 1980s, a lot of political and attitude changes occurred. These have dramatically affected the State-EPA relationship. In the 1980s, we began a national program of deregulating, of sending more and more work to the States, believing that that would be a more efficient approach, a more cost-saving approach, and for many other reasons. Without debating the pros and cons of that approach, I will simply remark that that is the current program, States are getting more and more of the lion's share of work, there is more decentralization.

In concert with that was a decrease in the amount of funds that the EPA transferred to the States to operate these programs. In the 1970s, EPA funding of State environmental programs, particularly in the water area, was a very significant portion of the operating costs of those programs. That's no longer the case.

So when EPA had problems with the State in the 1970s, they could manipulate the purse strings, so to speak. Since they were giving the States money, they had a right to expect the States to play a larger role. As I said, that is not the case now, and EPA is forced to ask the States to do more, while providing them with less funds.

This has resulted in more of a jawboning kind of reaction between EPA and the States, where there is a lot of talk about how important this is, this needs to be done, what can you do with what resources you have, rather than what you absolutely must do.

In concert with that, and in the delegation to States, there has also been a change in attitude. That is that EPA must now be a very strong cooperative partner with the States. Any actions by EPA to independently enforce permit violations are not viewed as being in a cooperative mode. EPA has been in a position now for a number of years where its primary objective is to try to have a good relationship with the State. Sometimes that does not bode well for this arms-length regulatory agency review, this healthy distance that I might talk about.

As a practical matter in this relationship, we have to realize that with the decrease in Federal funds and Federal employees working on State programs, many officials at EPA simply do not have any longer the knowledge and exchange of information with the State to be able to do an effective review.

For example, EPA has about a dozen, maybe less, people working actively on the Virginia program. The Virginia program administers over 1,000 NPDES permits, and nearly 1,000 other similar related permits, just in the water area alone. The Water Board has 350 people working on those projects. There is no way we can realistically expect the EPA staff to be on top of those issues.

Finally, as a result of all of those situations—staffing, money, different attitude—EPA has now embarked on an even more relaxed view of State programs. Virginia is participating in an experimental program which has been in existence for about a year, called Differential Oversight. Under that program, EPA will review only

about a dozen permits in Virginia each year out of that 1,000. EPA is practically out of the State in terms of any kind of close review of the NPDES permit program.

This brings us to the third issue, the enforcement question. I believe that basically, although some very good points have been brought out by the Attorney General here today, EPA has the enforcement powers to apply if it wishes to apply them. It must overcome any resistance to, and the attitude that it is perhaps stepping on the States' toes in some way. So far it has not done that to the extent we believe it has to be done. I think it relates to the issues I have talked about.

For the Commonwealth of Virginia, and I speak primarily about Virginia, because not all States are fitting in this category, but in the 1980s, we have seen a very serious trend by States to depart from strict compliance with Federal requirements and look more to what they, as a State, need to do. States have become very jealous of their enforcement powers, they have become jealous of their own rights to take enforcement actions. They don't want EPA messing in the State. That's fine, as long as the State will initiate those enforcement powers.

But in Virginia, that has not been the case. It was not the case in the Avtex situation. To make matters even worse, Virginia has been aggressively pursuing an approach to keep citizens from being able to pursue any enforcement actions of their own. As you know, there is a citizens suit provision under the Clean Water Act which allows any citizen to file suit in Federal court if there is a violation ongoing.

The problem with that citizens suit provision is that over the last ten years, Federal court decisions have made it extremely difficult for citizens to employ that citizens suit provision. It is now at the point of where only a large law firm or major environmental group can likely bring such a case.

Even if they do bring such a case, they are required to give 60 days' notice, which means the State or EPA can move forward and if they take action, that citizen is barred from doing anything further.

We have to remember and recognize the power of these citizens suit provisions. It was a citizens suit notice by the National Resources Defense Council that finally precipitated the decisive actions that the State took to do something about the Avtex situation.

But it is very difficult to use such citizens suit provisions, and if you are a citizen member of the Commonwealth of Virginia, under current theory and law, you have no standing to even appeal a case decision or permit decision in the NPDES program in Virginia. Virginia is now taking the position that you don't even have standing to appeal a rule or regulation. If you try to get to the citizens suit provisions under Section 505, the State will use that 60-day period to go into State court, or enter into a consent decree to stop that person from going into Federal court.

This creates a situation, if the State wishes to abuse it, where they can literally control all enforcement actions. If they are concerned about interstate competition, if they are worried about the consequences of closing a facility, if they are worried about the con-

sistency under which EPA will enforce the laws nationwide, they can effectively control those issues.

My recommendation to the committee to help resolve this is really very simple. We could ask for more funds for EPA, but I think given the State of the situation that is not realistic. We could ask and hope that this committee would continue to review EPA and State relationships so that there is an—can be developed a very healthy arms-length relationship—cooperative, but still at arms-length.

B I would specifically ask this committee to consider taking a look at the citizens suit provisions in the Clean Water Act, and see what can be done to make that particular section more effective and empower—if we can—the millions of people in this country who are fed up with these kinds of violations, and want to do more about it. But in States like Virginia, with their particular State laws, and the difficulties of pursuing the citizen supervisions in the Federal courts, simply cannot do it. They need some help.

Thank you, sir.

Senator REID. Thank you very much for your testimony, we appreciate it.

There is a vote now pending and we are going to have to adjourn shortly.

Senator REID. Senator Warner, do you have anything further?

Senator WARNER. One more thing I'd like to mention, I had an opportunity to talk with Mr. Burton today. I assume you know I am a State Water Control Board head in Virginia. He had some very interesting observations about the necessity for proceeding with some caution in this area. He pointed out that the Clean Water Act is a matured piece of legislation. It has been on the books since 1972. A lot has been learned under it. Now the Federal Government understandably is receding a little back in the background, but the States are coming to the forefront in the administration of this Act.

I thank the Chair again for this hearing. I think it has been very valuable.

Senator REID. This hearing has been very, very good. The subcommittee has been working for a time prior to the Avtex situation arising as to the enforcement powers of the EPA. This has been a good illustration of some of the problems that exist and of course some of the power that exists with the EPA, how it is used and not used.

We appreciate the cooperation of Senator Warner, his staff, and we are confident this will make the EPA's future one that is more recognizable by the committee.

Thank you all very much. The subcommittee stands in recess.

[Whereupon, at 11:31 a.m., the subcommittee was adjourned, to reconvene at the call of the Chair.]

[Statements submitted for the record follow:]

STATEMENT OF
EDWIN B. ERICKSON
REGIONAL ADMINISTRATOR, REGION III
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE
SUBCOMMITTEE ON TOXIC SUBSTANCES,
ENVIRONMENTAL OVERSIGHT, RESEARCH AND DEVELOPMENT
OF THE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
U.S. SENATE

June 20, 1990

Mr. Chairman and Members of the Subcommittee, I am Edwin B. Erickson, Regional Administrator of the Middle Atlantic Region of the U.S. Environmental Protection Agency. I am pleased to appear before you today to discuss the past and current events at the Avtex Fibers, Incorporated Superfund Site located in Front Royal, Virginia. With me today is Stephen R. Wassersug, Director of EPA Region III's Hazardous Waste Management Division who will discuss the details of the plant layout, and cleanup history.

This site represents an extraordinary example of the challenges and complexities presented by environmental problems in the air, soil, surface waters, and groundwater, all at the same location and resulting from the same operations. This site also represents a compelling example of the challenges presented by the differing jurisdictions of state and federal governments and by the applicability of a wide range of federal and state laws.

In order to illustrate these complexities and challenges, today I would like to discuss with you:

* The background and history of the site;
* The federal and state regulatory authorities applicable to and used for this site, particularly those available to the federal government;
* Our experiences in coordinating federal and state legal process and in choosing among available federal legal authorities, discussed by specific environmental medium, and,
* The scope of future activities at the Avtex Fibers, Superfund site.

However, before I explore these topics with you, it is important to note that numerous issues relating to the Avtex Site are pending in several arenas including state court, federal bankruptcy court, an EPA administrative penalty proceeding, and federal court in Philadelphia where one of the potentially responsible parties (PRPs) has sued the United States government for Superfund liability for its alleged activities at the site during World War II. Moreover, EPA is presently negotiating with a past owner of the site to conduct, in conjunction with EPA, a Remedial Investigation/Feasibility Study (RI/FS) for the entire site. I know that the Subcommittee does not expect me to comment upon matters which are the subject of pending litigation or

sensitive enforcement activity. Given these constraints, however, I will be pleased to discuss the environmental issues raised at the Avtex plant.

BACKGROUND

The Avtex Fibers site, located at 1169 Kendrick Lane, Front Royal, Warren County, Virginia, was, until its closing, in November, 1989, an active synthetic fibers manufacturing facility. The facility is situated along the east bank of the South Fork of the Shenandoah River, where it occupies 440 acres, 60 of which are under roof. There are 23 unlined waste disposal lagoons on the property. The site is surrounded to the south, east and northwest by residential areas. Approximately 1,300 people live within one mile of the site.

In 1940, rayon manufacturing operations began under the ownership of the American Viscose Company. From 1963 to 1976, the FMC Corporation owned and operated the plant. In 1976, FMC sold the site to several officers of FMC who formed Avtex Fibers, Inc., which is headquartered in Valley Forge, Pennsylvania. In July 1978, Avtex Fibers conveyed the site to Avtex Fibers-Front Royal, Inc., the current owner of the site. Avtex Fibers-Front Royal is a wholly-owned subsidiary of Avtex Fibers. Rayon fibers have been in constant production at the Front Royal site since its opening. Additionally, polyester was manufactured there between 1970 and 1977, and polypropylene was

made there from 1985 until the plants closing in 1989. Until its closure, the Avtex facility was considered to be the largest manufacturer of rayon in the world, producing one third of the U.S. production of this material.

The manufacturing operation produced rayon by means of a viscose process. Viscose is an amber colored, syrup-like solution made by treating wood pulp with sodium hydroxide and carbon disulfide. Viscose solution is used in making rayon thread, fabrics, and cellophane. As part of this process, sheets of wood pulp are crumbled and steeped in a strong solution of caustic soda. The slurry that is formed is dewatered, shredded, and aged before reacting with carbon disulfide in dilute caustic soda to form viscose solution. After aging, filtering, and deaeration, viscose solution is extracted in a sulfuric acid-zinc sulfate bath where the cellulose is regenerated in the form of continuous rayon fibers.

The rayon production process at the site generated two major waste by-products: sodium cellulose viscose, and zinc-hydroxide (sulfate) sludge. Between 1940 and 1983 approximately 14 million cubic feet of waste viscose was placed in 11 unlined surface impoundments (basins) on site. In 1983, Avtex stopped disposing of wastes in the basins and the liquid viscose was treated thereafter in the wastewater treatment plant which is located on the site. Sludge from the wastewater treatment plant was

disposed of in 7 other unlined basins which cover approximately 85 acres. In addition to the 18 viscose and sludge basins, fly-ash (material which is removed from incinerator exhaust by air pollution control devices) and boilerhouse solids were disposed, up to the time of shut down, in five other surface impoundments.

The waste viscose was discharged directly to the on-site waste water treatment plant which was issued a permit by the Commonwealth of Virginia State Water Control Board (SWCB) under the Federal Clean Water Act and state law to discharge to the South Fork of the Shenandoah River. Since 1980, a significant number of violations of Avtex's Virginia-issued National Pollutant Discharge Elimination System Permit have occurred.

In September 1988, EPA issued a Record of Decision under the Superfund program requiring partial remediation of the site. This Record of Decision was based on a RI/FS conducted by Avtex and FMC Corporation under the direction of EPA and the Commonwealth of Virginia. The Commonwealth of Virginia was involved and concurred in the decision process. The principal findings by EPA in the September 1988 ROD show that viscose basins 9, 10, and 11 are a major source of groundwater contamination. Elevated groundwater levels of carbon disulfide, arsenic, cadmium, lead and high pH, were detected in the vicinity of the basins. The area of groundwater contamination extends from the area of viscose basins 9, 10, and 11 in a southwesterly

direction under the South Fork of the Shenandoah River bed to the west bank into the Rivermont Acres residential subdivision. The risks posed by these contaminants in residential drinking water wells resulted in the purchase in May 1984 by Avtex of all but one affected property.

In April 1988, the Virginia Attorney General, Mary Sue Terry filed an action in state court citing Avtex Fibers with unlawful discharge of pollutants into the South Fork of the Shenandoah River. The complaint claimed that the facility violated its State discharge permit almost 1600 times since 19[illegible]0.

One of the more serious public health concerns identified during the initial Superfund RI/FS study, which was prepared by Avtex and FMC, was significant amounts of carbon disulfide air emissions from the Avtex Fibers plant. Under provisions of the 1986 Superfund Amendments and Reauthorization Act (SARA), known as the Title III Community Right to Know Law, Avtex reported approximately 50 million pounds of carbon disulfide being released into the atmosphere from the main production stack. This was a public health concern to on-site plant workers because of chronic toxic effects that may result from high exposure levels. The effects may range from headaches, adverse neurological and blood system effects, to mild mental retardation, convulsions and unconsciousness in severe cases.

In August 1989, the Virginia SWCB found polychlorinated biphenyls (PCBs) in the sediments of the South Fork Shenandoah River and claimed that the PCBs were emanating from the Avtex property. As an eventual outcome of the State's discovery, on November 9, 1989, the SWCB revoked the State-issued NPDES discharge permit since the permit did not allow for discharge of PCBs.

On November 10, 1989, Avtex Fibers ceased operations at the plant. During this same period, EPA undertook an emergency removal action at the site under the Federal Superfund program. The emergency action lasted for seven months and was necessary to stabilize the site and mitigate an immediate public health and environmental threat. Work performed during the action included the removal of 4,000 tons of liquid hazardous substances in tanks and other vessels; off-site disposal of 3,000 tons of PCB-contaminated soil; the treatment of 13 million gallons of contaminated stormwater as well as industrial waste water; off-site disposal of hundreds of containers of reactine, shock sensitive and unknown laboratory chemicals; the segregation and stabilization of drums, and the stabilization of all significant hazards on site. This work was completed in May 1990 at a cost of about $5.0 million, and is one of the largest emergency actions taken by EPA Region III.

FMC Corporation, in response to an EPA-issued Superfund

administrative order, is presently operating the on-site waste water treatment plant. Moreover, EPA and FMC are negotiating another administrative order wherein FMC would conduct a part of the total site RI/FS. After the site RI/FS is completed, EPA will select the appropriate remedial action for the entire site cleanup.

A more detailed history of State/EPA enforcement actions is described below.

COORDINATION OF FEDERAL AND STATE REGULATORY AUTHORITIES REGULATION OF DISCHARGES TO THE SHENANDOAH

EPA delegated the National Pollutant Discharge Elimination System (NPDES) to the Commonwealth of Virginia on March 31, 1975. Therefore, the Virginia SWCB has the lead responsibility for administering and enforcing the water discharge program at the facility. The State Water Control Board estimates that the Avtex Fibers facility violated its NPDES permit approximately 2,000 times between 1980 and 1989 when the SWCB revoked the discharge permit.

After a period in which the State repeatedly warned or cited Avtex for these violations, it undertook formal action for this continued non-compliance in November 1988, when the State filed suit against Avtex seeking $19.3 million in penalties and compliance with the NPDES permit. The State and Avtex settled the case by entering into a consent decree in January 1989.

However, due to continued violations of the consent decree and the permit, the State brought a contempt action against Avtex in April 1989. In July 1989, the state court found Avtex to be in contempt of the earlier consent decree and levied additional penalties.

In August 1989, the State discovered that Avtex Fibers was discharging PCBs, without a permit, through one or more of its permitted outfalls. Following this discovery, the SWCB revoked Avtex's permit. Immediately following this permit revocation, Avtex ceased manufacturing operations.

GROUNDWATER CONTAMINATION, SOIL CONTAMINATION AND EMERGENCY ACTIVITIES UNDER SUPERFUND

In 1981, the State Water Control Board discovered an area of groundwater contamination across the river from the Avtex facility. The State's investigation indicated that the chemicals in the groundwater were the same kinds of materials used by Avtex and stored in its waste holding lagoons. A subsequent study conducted by Avtex at the State's request confirmed the connection between the lagoons and the groundwater contamination. In December 1983, Avtex agreed to provide potable water to certain residents whose groundwater was found to be contaminated. In October 1984, the Avtex facility was proposed for inclusion on the National Priorities List (NPL), and on June 1, 1986, was placed on the NPL.

In August 1986, a consent order to conduct a Superfund RI/FS at the site was signed by Avtex Fibers and EPA. In January 1988, the consent order was amended to include FMC as a respondent. The Remedial Investigation, as discussed earlier, detected the presence of carbon disulfide, cadmium, lead, hydrogen sulfide, and arsenic in groundwater at the site.

In September 1988, EPA issued a Record of Decision (ROD), which selected a first operable unit remedy for the site. The remedy was intended to address groundwater contamination caused by the leaching of fluids from several viscose basins, and to minimize further leaching from these basins. In June 1989, EPA issued an administrative order (the June AO) to Avtex and FMC to perform or finance the remedial design/remedial action required by the Record of Decision. The companies agreed to comply with the June AO.

After the State revoked Avtex's NPDES permit on November 9, 1989, and Avtex ceased operations on November 10, 1989, Avtex notified EPA that it would not be able to carry out its obligation under the June AO. FMC, however, continues to perform the work.

As you can see, EPA has taken numerous enforcement actions at the site. EPA has also taken several emergency response

actions after the shutdown of the facility, including the stabilization and removal of carbon disulfide, an evaluation of hazardous materials inventories, and containment of all plant discharges to prevent uncontrolled discharges of hazardous substances (including PCBs) into the South Fork of the Shenandoah River. EPA has incurred Superfund emergency response costs of approximately $5.0 million dollars to date.

PCB EQUIPMENT AND PCB CONTAMINATION

EPA is the lead agency for enforcement of the Toxic Substances Control Act (TSCA) and the PCB Rule promulgated under TSCA. Under this authority, EPA conducted a PCB inspection of the Avtex facility on September 30, 1986. The inspection revealed a number of small volume, localized leaks and spills from transformers containing PCB contaminated materials, as well as other violations of TSCA regulations including recordkeeping deficiencies, inaccurate descriptions of units, and improper labeling. Avtex was advised by EPA of the inspection results, and based on the findings, Region III began consideration of an action for injunctive relief.

On August 14, 1985, prior to EPA's PCB-inspection, the SWCB collected fish from the South Fork of the Shenandoah River as part of a routine EPA monitoring program. No PCBs were detected in the fish tissue. On July 16, 1987, the SWCB again collected fish from the Shenandoah River. Laboratory studies of the fish,

which were received by SWCB in May 1988, revealed PCB levels ranging from 2.0 to 5.2 ppm in the fish. These levels were at or above acceptable U.S. Food and Drug Administration guidelines.

On August 11, 1987, EPA conducted another PCB inspection to support its pending enforcement action. The inspection showed that PCB leaks found during the previous inspection had been corrected. In addition, several additional transformers and new leaks of the same type were discovered.

On August 17 and 18, 1988, the SWCB again collected fish from the North and South Forks of the Shenandoah River. Results of fish tissue ranged from 4.1 to 92.0 ppm of PCBs. Based on the results, on May 12, 1989, the State Health Department issued a health advisory against the consumption of fish taken from portions of the North and South Forks of the Shenandoah. In response to the Health Department advisory, the SWCB initiated three studies of fish sediment and soil in the Shenandoah River.

On May 23, 1989, EPA telefaxed information on the previous EPA PCB inspections to the SWCB, and on June 22, 1989, a representative of the SWCB accompanied an EPA inspector on a PCB inspection of Avtex. The EPA inspector issued a field citation for various violations discovered during the inspection. Subsequently, on July 14, 1989, the State discovered significant

PCB contamination of soils at the facility (e.g., 78 ppm found near the loading platform).

On August 28, 1989, the State filed a complaint for injunctive relief against Avtex, seeking to enjoin Avtex from discharging PCBs to the Shenandoah River. At the same time, EPA was processing a request for administrative penalty action against Avtex for violations of the PCB regulations. On October 4, 1989, EPA initiated an administrative penalty action proposing a $303,500 penalty for PCB Rule violations. This action is currently pending.

On September 19, 1989, the State filed a Verified Motion for Temporary Injunction against Avtex seeking to enjoin operations at the Avtex facility and to order the company to remediate the PCB contamination. At the same time, the State requested assistance from the EPA Superfund program for a removal assessment of the PCB contamination. On October 13, 1989, the state court denied the SWCB request for a temporary injunction restraining Avtex from operating. However, on November 9, 1989, before the court rendered a decision on revocation of the Avtex NPDES permit, the SWCB voted to revoke the permit. This action was followed shortly thereafter by the cessation of all operations at the Avtex facility and Avtex's abandonment of the site.

TOXIC AIR EMISSIONS

Both the Superfund RI/FS and the Emergency Planning and Community Right-to-Know Act (EPCRA) data show that about 25,000 tons of toxic emissions came from the main production facilities, and that about 150 tons per year of toxic emissions resulted through evaporation from the surface lagoons located on-site. The Virginia Department of Air Pollution Control determined through air quality modeling that the evaporation of the emissions from the surface lagoons have had a more significant effect on adjacent areas than the emissions from the production stack.

In October 1988, Avtex challenged the State's authority to enforce the emission standard for carbon disulfide. However, on June 9, 1989, the Virginia Department of Air Pollution Control found Avtex in violation of the ambient air concentration for carbon disulfide.

On June 9, 1989, the Department of Air Pollution Control ordered Avtex to submit a plan to control its toxic emissions within 60 days, however, the company reduced its operations and subsequently closed prior to the plan being submitted.

FUTURE ACTIVITIES

Remedial long-term cleanup will be expensive and lengthy.

EPA's first Record of Decision and the remedy for Operable Unit No. 1 involve treatment of groundwater on-site. Dewatering and treatment of the viscose lagoons is estimated to cost about 10.0 million dollars and will require many years to complete because groundwater remediation is necessary. This response action is being performed by FMC Corporation pursuant to the provisions of the EPA June AO.

The second phase of the remedial clean-up, which has both an unknown cost and treatment length, encompasses the removal of viscose material from 85 acres of lagoons. There must also be consideration of soil contamination and contaminated structures throughout the site. Past and possible future contamination of the Shenandoah River and its sediments must be taken into account. In light of all this, EPA is preparing to issue a second ROD for remedial action for the entire site.

Additionally, EPA has been charged by Congress (Section 360 of the Department of Defense Authorization Bill) to study the Shenandoah River and to determine what environmental damage has resulted from activities of any company under contract with the Department of Defense or NASA. We are considering addressing this responsibility as part of a Superfund RI/FS. However, it is unlikely that this study will be completed in time to meet the schedule stated in the Bill. EPA has commenced a water quality

assessment of the Shenandoah River from Front Royal, Virginia to its confluence with the Potomac River using all currently available data. This study will be performed in consultation with the Commonwealth of Virginia and the State of West Virginia.

While the "fund-lead" aspect of EPA's Superfund Emergency Response action ceased in May 1990, there are several outstanding concerns at the Avtex site which may warrant additional emergency response action by the Agency. For example, about 17,000 gallons of sludge material contaminated with carbon disulfide remain in underwater storage tanks. Until EPA determines suitable and safe disposal techniques, the material will remain on-site. Also, the poor structural condition of several buildings may make it necessary to demolish some buildings. Additionally, there are approximately 2,800 drums of hazardous waste that have been stabilized which will require removal and disposal.

I also want to take this opportunity to say how proud I have been of the hard and skillful work performed by the personnel of EPA, our contractor, and many other federal and state agencies, many of whom have been on scene for the last eight months. A public health and environmental emergency has been managed well, thanks largely to these people.

Mr. Chairman, I would be pleased to respond to any questions which you may have at this time.

Statement

of

Mary Sue Terry
Attorney General
Commonwealth of Virginia

Before the

Subcommittee on Toxic Substances, Environmental Oversight,
Research and Development

of the

Senate Committee on Environment and Public Works

Presented by

R. Claire Guthrie
Deputy Attorney General

June 20, 1990

Mr. Chairman, Senator Warner, members of the Subcommittee, my name is Claire Guthrie. I am Deputy Attorney General for Human and Natural Resources in the Commonwealth of Virginia. I am here today to testify on behalf of Virginia's Attorney General Mary Sue Terry. General Terry regrets that a prior commitment has prevented her from being here to discuss with you personally the issue of coordination of federal and state environmental compliance efforts in the context of the Avtex case and to answer your questions on this important topic.

I. Original Involvement

As you may know, our Office first became involved with Avtex when the Virginia State Water Control Board (SWCB) referred the case to us for possible judicial enforcement in March of 1988. At that time, the company had a significant history of violations of its NPDES permit, and the Water Board's substantial efforts at effecting voluntary compliance had been unsuccessful. Subsequent investigation by our Office revealed that the SWCB was not the only state agency with enforcement problems at Avtex. The Department of Air Pollution Control and the Department of Labor and Industry both had active enforcement cases involving the Front Royal plant which were at different stages of development.

In addition, the Department of Waste Management had been working with the U.S. Environmental Protection Agency (EPA) to

resolve ground water contamination problems first identified in 1983. Based on these ground water problems, the Avtex site was proposed for the National Priorities List in October 1984, and a Consent Order for the conduct of a RI/FS was signed by EPA and the company in August 1986.

Moreover, it was clear by the time the case was referred to our Office that the company was in serious financial trouble, and had been for some time, and that some coordination among the various state agencies would be necessary to assure that the company's available resources were properly directed to redress the problems in some reasonable order of priority.

II. Coordination of State Compliance Efforts

Accordingly, once we became involved, our Office immediately sought the assistance of Governor Baliles in coordinating Virginia's compliance efforts and in setting the State's policy objectives. It was agreed by all concerned that, as long as the plant was operating, the most urgent concern was the health and safety of the workers in the plant. Of equal importance was ensuring that the company complied fully with all environmental requirements as expeditiously as technologically possible. And, we hoped that these two objectives could be met while the company continued to operate.

During the summer and early fall, we met with state and company officials to determine the extent of the compliance problems and the steps necessary to correct them. The company shared information about the precariousness of its competitive

position and cash flow situation with us confidentially, at the same time highlighting the number of jobs at stake and emphasizing the importance of the company's carbonized yarn to the Defense Department and NASA. While the company's financial difficulties were obviously not of the State's making and could not excuse noncompliance, we agreed to try to work with the company in establishing priorities and effecting compliance in a coordinated effort among all the agencies involved. These meetings culminated in a letter from our Office to the company's lawyer in October 1988 outlining the content of an interim consent order that we viewed as a necessary first step in reaching a satisfactory voluntary resolution of the company's compliance problems.

III. Precipitous Plant Closing

Despite these ongoing discussions, precipitously and without notice to our Office, the President of the company, John Gregg, announced on October 31, 1988 that the plant was closing effective November 3, 1988. Accordingly, in order to protect the State's interests and in an effort to assure that the Commonwealth and her citizens would not be left with 1300 displaced workers and a bill for the cleanup of the plant, our Office filed suit against the Pennsylvania parent company on November 2, 1988 seeking an injunction prohibiting further violations and requiring the company to effect a cleanup and pay substantial penalties.

IV. Avtex Negotiations with Defense Department and NASA

On learning that we had filed suit, the company informed us for the first time that it was in negotiations with the Department of Defense and NASA for monies to allow it to continue to operate. No State official was a party to these negotiations despite the fact that projected expenditures for environmental and worker safety compliance were key factors in the business plan that federal officials had requested from Avtex as a part of these negotiations. The only time state and federal officials met during this period was at a meeting held by Senator Warner in his office on November 17, 1988, and, without his involvement, there may have been no communication at all.

Our Office told the Air Force officials handling the negotiations that we did not think that the company was in a position to estimate fairly its projected costs of compliance, and we urged that representatives of the State agencies involved be asked to present independent estimates of the company's financial needs in this regard. We also offered to provide the company with information on costs that would assist it in obtaining adequate funding from the federal government to address its compliance problems. We made it clear to both the company and the responsible federal officials that the company's estimate of $5.75 million appeared low. Despite our efforts, this is the figure that was ultimately included in the business plan accepted by the federal government as the basis for its nearly $40 million investment to insure a continued supply of carbonized yarn.

V. State Consent Decrees

Once it was clear that the plant was not closing as previously announced, our efforts to force the company into compliance with its NPDES permit and applicable occupational health and safety standards redoubled. We wrote to the company's counsel on November 22, 1988 setting a deadline of November 28 for the company's response to proposed consent decrees resolving outstanding worker safety and water quality violations. One condition of both of these decrees was a secure source of funds to finance compliance commitments. In this regard, we demanded, at a minimum, that the $5.75 million to be provided by the federal government be deposited in a separate escrow account supervised by an independent party. Federal officials first resisted making any payment into such an account, but finally agreed to do so. Without Senator Warner's help in the final stages of the negotiations with the company on the proposed consent decrees, this critical state objective could not have been achieved.

The consent decrees ultimately entered by two state courts in December 1988 and January 1989 set up the $5.75 million escrow account, established compliance requirements and schedules to redress both worker safety and water quality problems, required immediate and continuing compliance with the company's NPDES permit, imposed $2 million in fines for past water quality violations and set up a stipulated penalty of $10 million for any future pattern and practice of violations of water quality standards.

VI. Further Avtex Violations

By April 1989, Avtex was in violation of the water quality decree, having violated its NPDES permit on a number of occasions -- including one day in March when it discharged the equivalent of two Volkswagons full of zinc into the Shenandoah River. In addition, at about this time, the State Water Control Board (SWCB) received sampling data that confirmed PCB contamination of the South Fork of the Shenandoah.

The SWCB's routine fish collections in 1979, 1983, and 1985 did not find PCBs in the Shenandoah system. Fish samples from the main stem in 1987 showed contamination above the FDA action level of 2 ppm. Additional samples of fish taken in August 1988 and June 1989 confirmed the contamination; one fish exceeded 110 ppm.

The Virginia Health Department issued a health advisory on May 17, 1989, warning the public against eating fish caught from the river. West Virginia later issued a PCB warning for the West Virginia portion of the Shenandoah. [The Shenandoah, of course, is a tributary of the Potomac, which supplies much of the drinking water for the Washington metropolitan area.]

Sediment samples from June and August, 1989, showed contamination downstream to the Route 7 bridge, 32 miles from Avtex. The highest concentrations in sediments (38.3 ppm) were found on the Avtex side of the river, just below outfall 004. Further sampling disclosed PCB contamination on the Avtex plant site in soils, on the compressor room roof, and within the storm water and wastewater systems. This sampling confirmed that Avtex

was the source of the river contamination revealed earlier in the spring.

Beyond a number of relatively minor leaks and spills, there appeared to be two major PCB sources on the Avtex plant site. First, PCBs used in heat exchangers at the polyester building had been spilled on the ground -- perhaps even before Avtex bought the plant from the previous owner. Second, information available at the plant and from the company's transformer service contractor showed that on December 22, 1985, a transformer exploded on the compressor room roof, sending approximately 500 kg of PCBs into the storm sewer and thus into the river. Avtex, however, continued with business as usual; having failed to report smaller leaks to EPA, it did not report the December disaster, either to EPA or to the state.

This December 1985 incident preceded an EPA inspection of Avtex on September 30, 1986 under the auspices of the Toxic Substances Control Act. That inspection disclosed a variety of violations that included leaks and failure to keep required records. The EPA regional staff proposed a $200,000 penalty under TSCA. Nonetheless, EPA did not pursue the proposed penalty, and did not report the violations to the State.

VII. Further State Proceedings

In April 1989, our Office brought an action to hold the company in contempt for its violations of the January 1989 consent order and on August 28, 1989, following a joint inspection of the Avtex facility by the State Water Control Board

and EPA in June, we filed a new lawsuit based on the PCB violations. The contempt action on the January order resulted in a ruling, issued on July 27, 1989, that imposed and suspended a fine of $990,000. The PCB case ultimately concluded in a decision and order in favor of the Commonwealth on November 22, 1989. The November 1989 decision lifted the suspension of the fine in the July order, imposed an additional fine of $50,000 for contempt, assessed civil penalties for the PCB violations of $3,000,000, accelerated the stipulated penalty of $2,000,000 from the January decree, enjoined further discharges of PCBs and required removal of the PCBs and remediation of the river. From April to November of 1989, it took five court hearings, one pretrial conference, one site visit by the state judge, and a trial to achieve these results.

Once the ongoing nature of the PCB discharges and the company's inability or unwillingness to control them became clear, the State Water Control Board initiated a proceeding to revoke the company's NPDES permit. After hearing evidence over part of two days in November 1989, the citizen Water Board voted unanimously to revoke the discharge permit.

VIII. Results of Avtex's Systematic Neglect

About 4:15 on the afternoon of November 10, 1989, Avtex turned off the power and abandoned its plant. EPA had an emergency response team on the road within hours. Under the capable leadership of EPA's On-Scene Coordinator, Bob Caron, EPA's removal action has controlled the PCB discharges from the

plant, removed tons and tons of hazardous materials, and provided a stable situation from which to begin a systematic remediation of the results of Avtex's years of systematic neglect.

The mess that Avtex made is staggering: PCBs contaminate over 32 miles of river, as well as most of the former wastewater and storm water facilities at the plant. The PCB contamination reaches almost a hundred acres of surface impoundments. Avtex's activities spilled so much acid that it literally ate holes in the earth under the plant; we now know that these artificial caverns contain groundwater contaminated with Avtex's hazardous wastes.

EPA has placed a $40 million lien on the plant under Superfund; the total cleanup cost cannot now be reliably calculated.

One officer of the Front Royal corporation is seeking to start another venture on the site. The other officers have taken their salaries, plus whatever other value they may have received, and gone on to other pursuits, leaving the mess in Front Royal behind. In the meantime, Avtex has sought the protection of the federal bankruptcy court in Pennsylvania.

IX. Recommendations

We have four general recommendations to offer for this Subcommittee's consideration based on our experience in the Avtex case.

- First, communication must be improved both within the EPA itself and between federal and state authorities.

At a minimum, EPA should be required to share the results of any of its regulatory or enforcement inspections promptly with state officials.

> It would appear from what we know that the Clean Water Act enforcement personnel at EPA did not know about the PCB contamination discovered at the Avtex plant by EPA Toxic Substances personnel. Thus, they were not alerted to the possibility of contamination of the river so that they could take preventive action. Nor were State water quality or waste management officials alerted regarding this possible problem. Better communication might have allowed either State or federal officials to begin monitoring for a possible PCB discharge at a time when its discovery might have eliminated much of the later contamination of the Shenandoah River.

Second, the federal government should take whatever steps are necessary to ensure that federal contractors are held to the same high standard of environmental compliance that recent policy directives indicate will be expected of federal facilities. Consideration should be given to strengthening environmental compliance requirements that are imposed on companies wishing to bid on federal contracts. Companies with a pattern or practice of noncompliance should be subject

to being declared nonresponsive and nonresponsible. Lack of environmental compliance should be pursued aggressively as a possible ground for debarment.

- Third, federal bankruptcy law should be amended to assure that the costs of environmental cleanup are accorded a higher priority in relation to other outstanding obligations than is now the case.
- Fourth, when there is evidence of knowing action by corporate officers that endangers public health, it should be easier to reach the personal assets of such officials, at a minimum to pay for cleanup.

BEFORE THE UNITED STATES SENATE

COMMITTEE ON

ENVIRONMENT AND PUBLIC WORKS:

Subcommittee on Toxic Substances,

Environmental Oversight, Research and Development

Re:

AVTEX FIBERS, INCORPORATED

Testimony by:

David S. Bailey
Environmental Defense Fund

Before the United States Senate

Subcommittee on Toxic Substances,
Environmental Oversight, Research and Development

Testimony of

David S. Bailey
Director, Virginia Office
Environmental Defense Fund

Re: Avtex Fibers, Inc.

ABOUT THE SPEAKER

David S. Bailey began working with the Virginia State Water Control Board in 1967 as a field biologist. In 1976, he was appointed Director of Enforcement, a post held until 1982, when he joined the Environmental Defense Fund as staff scientist. Finishing law school in 1985, he became scientist/attorney and director of EDF's Virginia Office. While at the Water Control Board, he worked on many projects and cases with EPA, including serving two years on EPA's national civil penalty panel, from 1977 to 1979, reviewing EPA civil cases for national consistency. As Director of Enforcement in Virginia, he prepared over one hundred civil enforcement cases under the Clean Water Act ("Act"), including the first prosecutions in Virginia for criminal violations of the Act.

UNDERSTANDING THE AVTEX CASE

Although there were many factors affecting the Avtex case

over more than a decade, the disaster and embarrassment that befell Virginia was primarily an enforcement problem. In Virginia's case, it was a decided lack of enforcement.

Understanding the Avtex situation, however, is more than just dismissing Virginia officials as "impudent" as they have been described on television. The roots of the Avtex problem and other cases like it still exist and, without some changes, are likely to recur.

Although Avtex was ultimately in alleged violation of many environmental and health and safety laws, it was the long-running violations of the Clean Water Act, 33 USC 1251 et seq., that eventually became the focal point for action. Thus, an examination of the factors that contributed to the failure of the Act's provisions, and the state's implementation of its responsibilities is instructive.

TECHNOLOGY-BASED AND WATER-QUALITY-BASED PERMIT LIMITATIONS

One of the most important accomplishments of the 1972 Clean Water Act was to end the interstate competition for industrial development based on pollution discharge limitations. Prior to the Act, any state which required pollution control expenditures from in-state dischargers risked placing that industry at a

disadvantage with other states that did not require such controls. Often, the mere chance that such controls might be required drove industrial prospects to "shop" for states with lax requirements.

The Act achieved this objective by mandating that all dischargers meet, at a minimum, those discharge limitations determined by EPA to be "best practical technology" ("BPT") for each industrial category.[1] 33 USC 1311(b)(1)(A). The objective, which was largely achieved, served to greatly "neutralize" pollution control costs among industrial categories.

In addition to BPT requirements, the Act also required all dischargers to meet "any more stringent limitation", including those required to meet water quality standards. 33 USC 1311(b)(1)(C). This was necessary because the BPT limits, based only on pollution controls that were economically practical for

[1] Unfortunately, EPA did not promulgate BPT for the chemical industry, which included Avtex, until the late 1980's. In the interim, permits were issued by the states under "best professional judgement" ("BPJ") of what BPT might eventually be. This permitted Virginia to take a less restrictive view of Avtex's pollution control requirements from the beginning, with EPA having little to object to since they had not promulgated BPT regulations for this industrial category.

each category, might not be stringent enough to protect all water quality situations. However, the effect of the water quality limits were not immediately realized because most states had only a few standards for basic pollutants such as pH, temperature, and dissolved oxygen.

Later provisions and amendments to the Act would require "best available technology" ("BAT") for each category as well as various special toxic control requirements, all of which served to further raise the national minimum level of pollution controls. See, generally, 33 USC 1311. These controls, however, never quite had the "bite" of the initial BPT requirements and EPA was often accused of promulgating BAT guidelines in the late 1970's and 1980's that were little more than "warmed over" BPT requirements.

The result of these events was to leave many streams in each state still limited by water quality conditions, not BPT or BAT requirements. For these areas, the specter of interstate competition rises again. Many states avoided this issue by simply not promulgating water quality standards.[1] This was so

[1] Virginia had barely a dozen specific numerical standards in 1989, when Avtex Fibers was finally closed, and had steadfastly refused to adopt more standards, preferring instead the use of EPA criteria as "guidance".

even though EPA had promulgated over 120 "criteria" for state water quality guidance. This problem remains a serious impediment in Virginia, which has still failed to adopt any of the mandated EPA criteria required by the 1987 Act amendments.

Thus, Avtex Fibers, Inc. ("Avtex") had managed to largely escape both technology controls and water quality limitations because none were promulgated. It was widely known among regulatory officials that imposition of real water quality standards, or even the BAT technical requirements, when promulgated, would probably close Avtex.[3] State officials were reluctant to apply limits which might force plant closure, and EPA was hampered by a lack of promulgated guidelines.

EPA OVERSIGHT

Since one stated interest of the Subcommittee is related to EPA-state coordination, special comment on this issue is appropriate.

[3] EDF argued against reissuance of the Avtex NPDES permit in 1987 because of the lack of adequate water quality limitations for several metals. The Board refused to change the proposed permit, which was perceived as "what Avtex could do". EDF elected not to challenge the permit because of standing problems.

The NPDES permit program is delegable to qualified states. 33 USC 1342(b). Virginia obtained delegation in 1974. The purpose of delegation is, of course, to promote cooperation and efficient use of resources, i.e. - non-duplication of state efforts by EPA. In the 1970's, the federal government actively supported the state program and, as a result, could exert strong control by merely tightening the purse strings. That support has now dwindled to practically nothing, and EPA has little power to exert except that granted by federal law.[4] Even then, as a practical matter, EPA simply couldn't demand work when state budget constraints did not allow for it. EPA was rapidly reduced to a "friendly pressure" role. Any concept of EPA withdrawing delegation of the program for non-performance, the only real sanction in the Act, was ludicrous. EPA had less than ten people devoted to Virginia programs; the Virginia Water Control Board employed 350 people, issuing nearly 2000 permits.

EPA oversight was dealt another crippling blow when the Reagan administration began to emphasize deregulation and "delegation to the states". Now under direct political pressure

[4] At one time, EPA contributions constituted almost one-half of the Virginia Water Control Board budget; by the late 1980's, it was about 10-20%, or less.

to delegate, EPA's oversight control was practically nil. In 1988, EPA even put Virginia on an experimental "differential oversight program". The casual observer might just as well call it "benign neglect". Under this program, still in effect today, EPA will review barely a dozen Virginia NPDES permits each year. It probably doesn't matter anyway, since the flow of technical information to EPA and EPA regional staff knowledge of specific Virginia situations has fallen so low that EPA probably could not perform an effective permit review role at any rate.

ENFORCEMENT

The Act provides for ample separate enforcement powers by EPA even when the program is transferred to a delegated state, with or without notice. See, generally 33 USC 1319. During the enforcement of BPT and water quality limitations in the 1970's, EPA used this tool frequently to prod state action, or to help "empower" the state in dealing with political situations. In the 1980's, however, such "309 letters" were less favored, and often viewed as a "failure to communicate" with the state, or even an insult. Their use, at least in Virginia, declined.

Administrative enforcement efforts became more popular, as a quick and easy way to address violations short of litigation. These may take the form of consent agreements, administrative

orders, directives and/or administrative penalties. As their numbers increased, administrative orders were not routinely reviewed by EPA, especially if the state considered the discharger in compliance with the order. Sometimes, such orders would establish alternative discharge limitations for long periods of time. The wide use of these orders created an opportunity for quick and effective enforcement; or, in the alternative, a means by which the state and the discharger could enter into very easy "sweet-heart" deals which effectively ended the discharger's liability for permit violations. Avtex usually got an order that allowed it time to do whatever was required. It is very easy to fall into a long running period of noncompliance with such administrative orders, and because the order purports to address the violation, such facilities are then considered to be resolved cases and little attention is paid to them.

With EPA shying from overriding a state, and the state tied up in administrative actions, the only enforcement arm left is the citizen suit provision of the Act. Any citizen may sue in federal court after 60 days notice to the state, EPA and the violator, if the state has not taken action in state court after the notice period. 33 USC 1365. It was just such a notice by the National Resources Defense Council that finally triggered

serious state action. It would seem surprising that the violations could go for so long without citizen action sooner but that demonstrates another problem.

The citizen suit provisions of the Act have been severely eroded over the past few years. It was, of course, never cheap or easy to file a "federal case" and many citizens could not afford to bring the cases, even with the prospect of attorney fees. Court decisions during the eighties acted more to encumber than support the citizen suit, with protracted litigation and appeals over the details of violations, jurisdiction, filing times, etc. In most cases now, citizen suits are filed by citizen lawyers, law firms or organized environmental groups. The average person simply can't file such actions. Even when notices were filed, the states had 60 days to cut their deal with the violator and file the action in state court to stop the citizen cold; and that often happened, further discouraging the citizen from trying.

Finally, citizens of the Commonwealth of Virginia could try to initiate an action in state court. Virginia, however, has made that virtually impossible. There is no comparable state citizen suit provision, and the Virginia Attorney General has vigorously fought any effort by citizens to intervene in any

state enforcement actions, and has successfully defeated any attempts to appeal agency decisions. There is, essentially, no judicial review of any environmental agency action in Virginia. Thus, once the state enters into an agreement with a violator, the citizen has no way to object, as he is barred from both state and federal court.

CONCLUSION

The Avtex case had problems from the beginning with no EPA promulgated guidelines. This contributed to the state's reluctance to force Avtex into more pollution control. This policy continued for years, as the state held off on water quality limitations and standards, fearing interstate competition might drive Avtex out of business. EPA oversight dwindled with increasing political emphasis on program delegation and State-EPA cooperation. As conditions deteriorated at Avtex, and the state became more deeply involved in carrying Avtex along, it simply became too late to stop the disaster in the making. Opportunities for citizen action were limited but, nonetheless, must be credited with the decisive notice that finally began the end for Avtex.

Can another Avtex happen again? Absolutely. Except for the guideline promulgation problem, now largely history, the same conditions exist today in Virginia and other states that

promote state favoritism towards local industry, lax federal overview in the name of EPA-State cooperation and eroded citizen empowerment.[5] If anything, with the new water quality standards requirements under the 1987 Act Amendments, the states are under even more pressure to resolve issues without hurting state industry.[6]

RECOMMENDATIONS

Although additional staff for EPA to review state programs and in particular, enforcement, would be helpful, it is probably unrealistic to expect that at this time. EPA must be cautioned to keep an "arms length" review of state programs, if it is to act in any reviewer role, but the political realities of current deregulation and shifting of programs to the states with little or no funds will make that difficult.

[5] At almost the same time Avtex was being closed, the State of Virginia found itself mired in yet another national embarrassment, the Kim-Stan Landfill. State attempts to regulate the landfill by administrative order failed. The state opposed any intervention by EDF and, finally realizing that the landfill could never comply with state laws, just like Avtex, revoked the landfill permit. But by the time it was all over, the landfill was nearly filled and the state was left holding a multi-million dollar closure bag.

[6] Virginia just adopted a dioxin water quality standard based on economic feasibility and technological availability, in direct conflict with the Acts' requirement to adopt standards that protect stream uses, regardless of cost. EDF has requested that EPA disapprove it.

This committee could consider, however, actions which would increase the opportunity for the one group that has been consistent in federal/state review, and that is the millions of American citizens who are fed up with the continued violations of environmental laws, state favoritism and lax federal review. The citizen suit provisions of the Act should be strengthened to provide for easier enforcement, mandatory penalties and certain reimbursement of attorney fees, even at the notice stage if such notice was reasonable. Citizens who would have had standing in federal court if EPA were administering the program, but are denied standing for judicial review of state permit decisions or enforcement actions in state court, should be permitted to take such review to federal court. Such actions would not only empower and "regenerate" the citizen suit provisions but would encourage both EPA and the States to step up their own programs, and industry to comply, to avoid citizen action.

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